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**Investigating using diversification as a strategy to  
respond to and prepare for recession:  
Case study of Thai construction firms**

By

**Tatree Chitplee**

This thesis is submitted in partial fulfillment of the requirements for the degree of  
Master of Science in Built Environment

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**Dedicate to my parents**

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## **Abstract**

In 1997, Thailand fell into a deep recession as a result of the devaluation of the Thai Baht. This brought about great negative effect to the Thai economy as a whole. The construction industry was no exception. As the crisis happened too fast and too unexpectedly, Thai construction companies did not have effective plans to respond to the severe situation. This report will investigate how the leading Thai contractors use diversification as a strategy and the extent to which these companies prepare for the recession. This research is based upon both qualitative and quantitative data drawn from the companies' financial statement and interview. 1) Diversified and non-diversified companies, 2) Related and unrelated diversification, and 3) Vertical, horizontal and geographical diversification are compared to find the superior strategy, type and form of diversification in relation with the business cycle. The findings of this research demonstrate that diversification, especially related diversification, can be adopted to respond and prepare for recession,. However, selection of form of diversification is dependent upon the company's nature.

**Keywords:** *Diversification Strategy, Related Diversification, Unrelated Diversification, Vertical Integration, Horizontal Diversification, Geographical Diversification, and Recession.*

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## Chapter 1: Introduction

Recession often brings about negative effects to industries, including construction industry. The 1997 Asian financial crisis was triggered by the devaluation of the Thai Baht. This crisis brought uncountable negative effects to every Thai economic sector, especially the Thai construction industry. Given that “Boom and Burst” cycle is normal and unavoidable, downturns are usually taken into consideration. However, the contour of the Thai construction industry is rather different. Most apparent is the fact that the gap between “Boom” and “Slump” is very great (see figure 1.1).

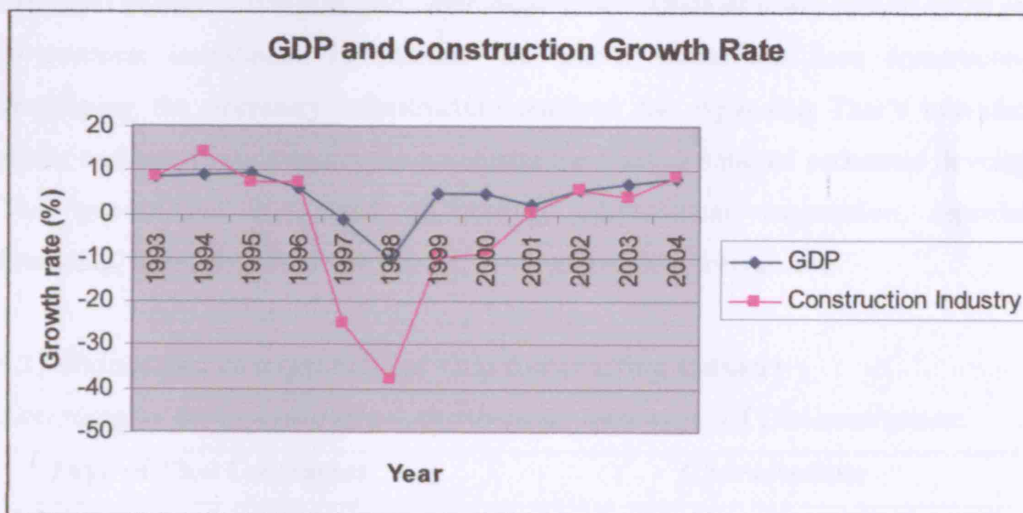


Figure 1.1: Thai GDP and construction growth rate (Source: NESDB)

This phenomenon is caused by the fact that no one in the industry ever anticipated nor prepared for the change. The full force of the economic downturn caused a large proportion of firms to perish, those that did not had to struggle hard to survive. Albeit, at present there is an increase in the number of construction projects, both public and private, the fluctuating nature of Thailand's economic and financial status and the unpredictable oil situation cautions us that the possibility of a 1997 like crisis is still high. Hence, for Thai construction industry the search and development of an effective strategy to cope with an impending recession is paramount. And diversification strategy is one of the most effective at responding to recession by spreading risk that a firm faces.

### 1.1 Background of construction industry in Thailand

The Thai construction industry's 30 years growth is resultant of the Thai government's national development planning. Thereafter, construction activity has become an important part for national development. In order to improve the performance of Thai construction industry, the Thai government encouraged the industry to import, learn and adapt the knowledge of foreign contractors, mainly from western countries and Japan and offered support through construction projects (Kampempool, 1981).

During the period of construction boom, construction projects such as skyline building exploded mainly in Bangkok and other major cities. Much of it was caused by an increase in overseas investment. In addition, the public sector has been constructing and developing the necessary infrastructure required for expanding Thai's manufacturing sector and growth in exports. To accelerate the goal of national economic development, Thai government considered establishing international cooperation, especially in financing, technological development, external loan and foreign aid.

### 1.2 Nature and characteristic of Thai construction Industry

According to Tachopiyagoon's study, there are three types of Thai contractors:

Type of Thai Contractor	Characteristic
1) Solely Thai owned contractor	100% share held by Thai people
2) Joint-Venture contractor	Thai company joints with foreign company, usually 51% of registered capital held by Thai company
3) Foreign contractor	100% or the majority of share held by foreigner

Table 1.1: Type of contractors in Thailand

Types of construction work in Thailand can be categorised into four main groups:

- 1) Housing construction work
- 2) Commercial building construction work
- 3) Industrial construction work
- 4) Infrastructure construction work



The majority of the civil engineering works are covered by public sector such as highway, water supply structure, airport, while private sector plays an important role in housing and commercial building projects.

There are some constraints affecting development of Thai construction industry. Thai contractors are facing both increased competition in both the weakening overseas and domestic market since foreign companies are taking an ever larger share of the construction market than ever before (Tachopiyagoon, 1988). Another important problem that Thai contractors face is increased material costs, especially those that need to be imported. This problem is further compounded when it takes place after contract signing. At present, the government is largely ignorant about this problem.

### **1.3 Impact of recession on Thai construction sector**

In Thailand, the construction sector is among the first to take-off during economic prosperity as it became an integral part of the country's economy as its proportion of GDP value went up from 4% to 6%, in 1980's and 1990's respectively (NESDB). Similar to other countries, the swing magnitude of the Thai construction activity is greater than the economic growth rate, both during the boom and bust in the business cycle.

During 1987-1990 the boom, the private sector was the main source of construction investment, consuming approximately 70-75% of total construction expenditure. Since 1994 the construction growth rate then dropped as a result of oversupply and economic slowdown. To counter this development, the Thai government had been forced to increase their budget allocations for infrastructure projects to solve the deficiency in infrastructure in order to support the construction industry. Consequently, from 1994 to 1996 prior to the Thai economic crisis in 1997, the construction business continued to grow, depending mainly on infrastructure projects.

The 1997 crisis stemmed from the banking sector's imprudent expansion and diversification of domestic financial market, fuelled by short-term private borrowing (Montes 1998 cited in Jomo 1998, p.16). This is substantiated by information from Bank

of Thailand (BOT) that shows loans in construction had increased drastically every year from 1990-1997 (see figure 1.2).

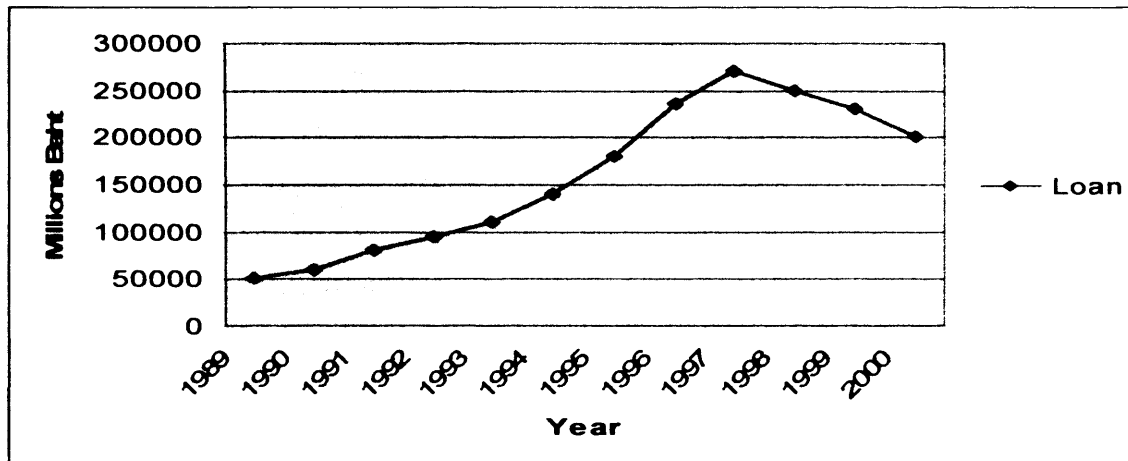


Figure 1.2: Loans in construction industry (Source: Bank of Thailand)

The floating of Thai baht in 1997, 1 USD/25BT to 1USD/40BT, brought about great losses to many domestic companies, particularly those who borrowed foreign money. For the property market, the recession saw the decline of the middle and upper class buying power (Tiger in Trouble p.139). This severely affected on property developers and contractors who served the private sector causing them to experience cash flow shortage and the inability to repay their debts. In contrast, the contractors whose clients are mainly in the public sector had no payment problem. Nonetheless, since the government had to partly cut down the construction expenditure reduced workloads, particularly affected even these companies' finances. As a result, after the economic crisis, the construction industry's proportion of GDP is now only 2-3% which is somewhat low.

Since Prime Minister Taksin Chinnawat's tenure, in order to enhance the industry's performance, the government have initiated created a number of construction projects<sup>1</sup>. Also, the government by establishing the Board of Promotion for Design and Construction Service (BPDC) has been trying to encourage Thai contactors to work aboard. Likewise, in the last 5 years South East Asian construction industry has been

<sup>1</sup> For example: Rail System Mass Rapid Transit Network, Government Centre, New Business Centre

growing rapidly due to economic improvement in China, especially those countries close<sup>2</sup> to China. In those countries both public and private sector's construction projects have and are still increasing sharply to support national economic development. The majority of public construction projects in those countries have been predominantly funded by World Bank or ADB. And also, Thai government gives top priority to Thai contractors to undertake overseas projects by lending the money to Laos, Vietnam and Cambodia in infrastructure projects.

#### 1.4 Responses of Thai organisation during the crisis

According to Thai Farmer Research Centre (TFRC, 1997), assessing Thai organisational responses to economic crisis, the strategies mentioned are shown below.

- Cut organisational expenditures
- Restructuring and Down-side
- Stop investment
- Postpone expansion
- Cut man power requirements
- Reduce production
- Cut price
- Seek new market
- Upgrade production technology
- Upgrade product quality
- No short-term credit from abroad
- Not to expand loans in unorganised markets (risk of potential losses)
- Utilisation of local resources (not imports)
- People in organisation are kept well-informed of the changes and actions
- Seek the full cooperation and inflict discipline to management and staff
- Cease operations

Table 1.2: Organisational response to economic crisis (Source: Thai Farmer Research Centre, August 1997)

<sup>2</sup> The countries consist of Laos, Vietnam and Cambodia

However, for the Thai construction firms seem to be ineffective at responding to the economic downturn because most of them are mainly compose of family-run business and with little professional expertise. The economic crisis made evident that the skills and knowledge, particularly management, possessed by those contractors were inadequate. During 1997-2001, 15,980 companies deserted the industry. It can be seen that there are an increase in the number of disappeared companies after the crisis year by year which impacts on development of the industry. Therefore, the proper strategy to respond to and prepare for recession is important.

### **1.5 Research objectives**

Considering the effects of 1997 crisis upon Thai construction firms and the lessons learnt, this research will explore the relationship between recession and diversification among Thai construction firms. It will assess the effectiveness of diversification in dealing with upcoming depression. The performance of each type and form of diversification will be compared in term of growth, profitability and so on in order to identify the most appropriate strategy related to a period of recession

The aims of this report are:

1. Investigate the understanding and expectation of using diversification in Thai construction firms based on lesson learnt from the previous economic crisis.
2. Analyse and assess Thai construction firms' performance in dealing with the recession and post recession environment to identify the appropriate diversification strategy to deal with recession.
3. Draw conclusions and determine whether diversification is suitable for Thai firms to deal with the next recession, and in long term point out types and forms of diversification appropriate for Thai construction firms.

## Chapter 2: Literature Review

### 2.1 Business cycle

Business cycle is the natural phenomenon of every industry, and the timing of cycle is different according to the nature of business itself and its environment. Although there are many market cycles of varying length and amplitude, the following cycles are deemed important (Pruden 1978, p.64):

- Kitchen Cycle: 40 months' duration
- Juglar Cycle: 9 ¼ years' duration
- Kuznets Cycle: 18 ¼ years' duration
- Kondratieff Wave: 54 years' duration

Sherman (1991) has explained the theories and reasons associated with the business cycle as follows.

#### ***The multiplier-accelerator theory*** (Demand side)

According to Paul Samuelson, consumption rises as a result of increase in income, but rather slowly. Any injection such as new investment resulting in creation of continuous spending which is several times the original investment is referred as the multiplier effect.

#### ***Under-consumption*** (Supply side)

A slow down of the consumption rate influences the expectation of new investment, then leading to recession.

#### ***Monetary overinvestment*** (Supply side)

The expectation of greater future profits and demand causes a huge increase in investments based on both realistic prediction and pure speculation. As an increase in demand for loans, interest rates then rise, leading to precarious position of business investing. A reduction of demand could lead to further depression.

### ***The reserve army***

Full employment or almost full employment could probably cause the recession, explained by Karl Marx. This is because wage – contribution to a part of production cost – stays at a high level, while the rate at which surplus value can be extracted remains static or declines.

### ***Profit squeeze (or the nutcracker effect)***

This theory suggests that business cycle could be created when supply grows faster than demand or demand drops faster than supply.

### ***The Marxist approach to money and crisis Karl***

Marx states that credit system is the main cause of monetary crisis. He also points out that the consumer spending velocity does not follow the constant trend. Therefore, in the recession, velocity of spending will decline as a result pessimistic view of the future.

### ***Financial fragility***

Woodward claims that in the expansion period the financial system has become more vulnerable. The financial sector will be impacted by non-performing loans, unless the corporations have sufficient funds to service the interest due, leading to the collapse of financial system. This could turn depression to a worse circumstance.

In general, Kuznets cycle and Kondratieff wave can be classified as a short wave, and long wave respectively. The former is influenced by change of economic behaviour such as rising in personal income, whereas large change of technology or social structure is the main cause of the latter. Note that, in this report I will be mainly focusing on short wave phenomenon.

## **2.2 Diversification as a strategy to tackle business cycle**

Diversification is defined as the process by which firms extend the range of their business operation unit into a new line of activity, either by internal business development or external development (e.g. acquisition), which entail changes in its management process (Hillebrandt and Cannon 1990, p.34 and Ramanujam and Varadarajan cited in Goold and Lurchs 1996, p.263). This means that such firms embark upon the production of new services or products without abandoning their old lines of business<sup>3</sup>.

Inevitably, construction demand fluctuates parallel to national development which is susceptible to national demand, leading to instability (Low 1991, and Hillebrandt 1996 cited in Ai-Lin pp.207 and 209). Lansley, *et al* (1979) and Walker (1996) demonstrate that flexibility is an essential ingredient to survival against uncertain demand, especially during a recession. Diversification as one of a flexible strategy could help a construction firm survive by diversifying to markets<sup>4</sup> where opportunities exist (Ansoff 1969, pp.298-300, and Ai-Lin, p.207).

In general, the demand cycle of any products consists of experimentation, development and maturity stages (Ansoff, 1969). Therefore, firms dependent upon the demand cycle, particularly for durable products i.e. construction firm, would then confront to downturn in maturity period. It is necessary to develop alternative strategies to stimulate and extend the cycle via increasing share of the market, introducing improved products which create replacement demand and introduce the products to markets not previously invaded (Ansoff 1969, p.29 and 291), as illustrated in figure 2.1.

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<sup>3</sup> To be identified as diversification, the new production would have to be sufficiently distinguished from the other activities offered.

<sup>4</sup> Markets: markets in this case refer to market which are resistance to recession. It is the market where: price stability, expected growth rate of industrial profits, ease of entry by new firms into the industry, stability of sale over the business cycle and no dependence on single customer (balance between Public and Private client) (Ansoff 1969, p.299)

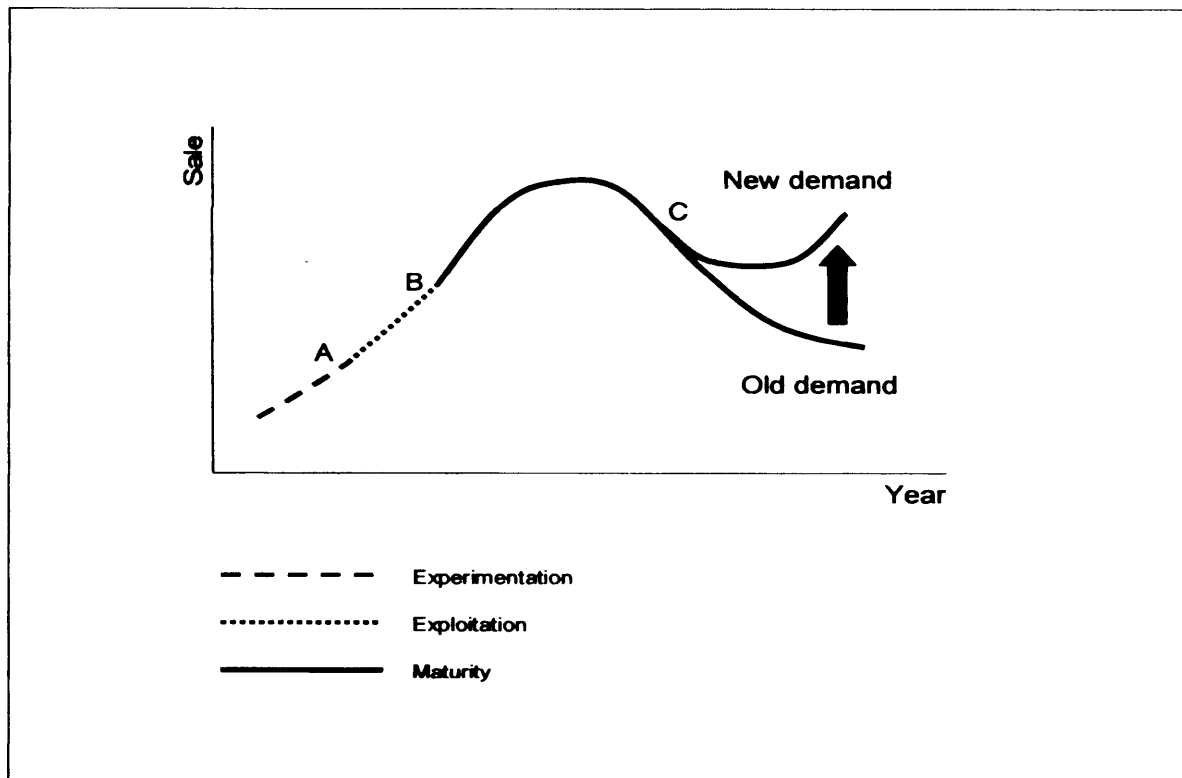


Figure 2.1: Hypothetical growth (Adapted from Ansoff 1968, p. 291)

The reasons for diversification as identified by Hillebrandt, Cannon and Lansley (1995, p.63)<sup>5</sup> and Ansoff (1968)<sup>6</sup> are many. By linking to recession it can be summarised the reasons for diversification, as following:

- 1) To spread risks
- 2) To conquer the fluctuation of workload
- 3) To overcome the decline of the market that firms operating
- 4) To utilise resources efficiently

<sup>5</sup> 1) to increase profitable growth, 2) to seek different activities to achieve growth, 3) to increase efficiency by controlling suppliers or achieving the greater synergy, 4) to make good use of positive cash flow and to increase fixed assets, and 5) to avoid dependent on a cyclical nature of construction and particular client and markets.

<sup>6</sup> 1) the firm's objective cannot be reached by continuing operation in its existing markets, 2) the firm's resources exceed the necessary to expand in the existing markets, and 3) there are existing opportunities in new market areas which the firm may benefit.



### **2.3 Diversified versus non-diversified organisation in dealing with business cycle**

Firms can spread risk by entering into more than one business, preferably contra-cyclical businesses (Hillebrandt, Cannon and Lansley 1995, p.125). This enables such firms to receive compensation from their other activities when one declines. Moreover, diversified firms can reap the advantage engendered by market power and resource power. The former will enable diversified firms to increase market power advantages to enhance performance by influencing their business environment, whereas the possession of difficult to buy, difficult to replicate and difficult to substitute resources, leading to superior performance, will be gain from the latter (Amit and Livnat 1988 cited in Aleson and Escuer 2002, p.121 and Zoiopoulos 2003). These are relatively vital in recession because the reduction of demand causes higher competition. Therefore, firms which possess those powers would have a better chance of survival. The negative implication of market performance will bring about the negative effects to firms with limited diversification rather than diversified firms (Aleson and Escuer 2002, p.122)

All in all, diversification can be perceived as the strategy to respond to both recession and post recession period since its main aim is to spread risk and overcome fluctuation of demand. However, there are a wide range of diversification strategies which possess different prominent points. Consequently, those points will be discussed to give perspectives of diversification relative to recession.

### **2.4 Related and unrelated diversification and performance under business cycle**

In this part, two mains types of diversification will be explained to illustrate its relationship and performance in relation to market cycle. Generally, it can be categorised as related diversification and unrelated diversification.

Related diversification occurs when the new business is in some way related to the firm's existing business, whilst unrelated diversification is thought of as an organisation moving beyond its current value system or industry (Douma and Schreuder 2002, p.206, and Johnson and Scholes 2002, p.302). A wide range of academic literatures such as Ansoff (1965), Bettis (1981), Lecraw (1984), Palepu (1985), Rumelt (1987), and Singh and Montgomery (1987) reflect that related diversification outperform unrelated

diversification. This is because the former allows the firm's corporate centre to exploit the interrelationships of existing resources among the different businesses (Markides and Williamson 1994, p.149, and Aleson and Escuer 2002, p.123). And, related business units are capable of sharing market, distribution channels, technology, brand reputation, raw materials, etc., including management capability (Rumelt 1974, Teece 1980 cited in Aleson and Escuer 2002, p.123, and Douma and Schreuder 2002, p.207). In addition, both tangible and intangible resources can be utilised in the activities related to core business and could be transferred at a lower cost (Porter 1987 cited in Aleson and Escuer 2002, p.123).

According to Porter (1980), to win competitive advantage in any markets, a firm needs to be able to deliver a given set of customer benefits at the cost lower than competitors, or provide customer with benefits that its rivals cannot match, cost leadership and differentiation (Markides and Williamson 1994, p.151, and Hillebrandt and Cannon 1990, p.24). By developing strategy around core competence – related diversification – firms can create new strategic assets<sup>7</sup> faster and at a lower cost, leading to gaining competitive advantage. Furthermore, related activities are capable of creating synergy, consisting of sale synergy, operating synergy, investment synergy and management synergy (Ansoff 1968, p.75), which support competitive advantage.

In contrast, when firms diversify into unrelated business, potential synergies decrease and internal governance difficulty increases. Accordingly, only financial assets could be shared, while other types of resources might not be suitable for sharing. As a result of non-shareable nature, when one market declines, whereas another flourishes. Those resources cannot be transferred, leading to over capacity in one market and insufficient capacity in another. However, unrelated diversification still has its merit. By undertaking unrelated diversification, risk of failure could be spread across several product markets (Aleson and Escuer 2002, p.124).

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<sup>7</sup> Strategic assets are assets that underpin a firm's cost or differentiation advantage in a particular market and that are imperfectly imitable, imperfectly substitutable and imperfect tradable (Markides and Williamson 1994, p.149)

## 2.5 Forms of Diversification

Diversification can be divided into three main categories:

- 1) Vertical integration, consisting of backward and forward vertical integration
- 2) Horizontal diversification
- 3) Geographical diversification, including Internationalisation

**Vertical integration** is either backward or forward integration into adjacent activities in the value system (Johnson and Scholes 2002, p.298). Backward integration is defined as the development of businesses whose products are inputs to the firm's own main operation, while forward integration refers to development into activities which are concerned with a company outputs (Hillebrandt and Cannon 1989, p.31 and Johnson and Scholes 2002, p.299). In the other words, company expands in term of the functions performed in-house by vertically integrating (Male 1991, p.70).

**Horizontal diversification** is a movement into other markets where do not involve the firm's operating businesses in any vertical relationships – both backward and forward integration (Hillebrandt and Cannon 1989, p.31). This kind of diversification can be related or unrelated to the existing activity. However, those activities must not be the activities of the core business's supply chain.

**Geographical diversification** refers to the distribution of productive investment across additional geographic market either nationally or internationally (Element Economic web and Johnson and Scholes 2002, p.370). However, this report will focus upon “internationalisation”, which is the diversification strategy that the companies expand their services or operations beyond the boundary of its own country (Male 1991, p.70).

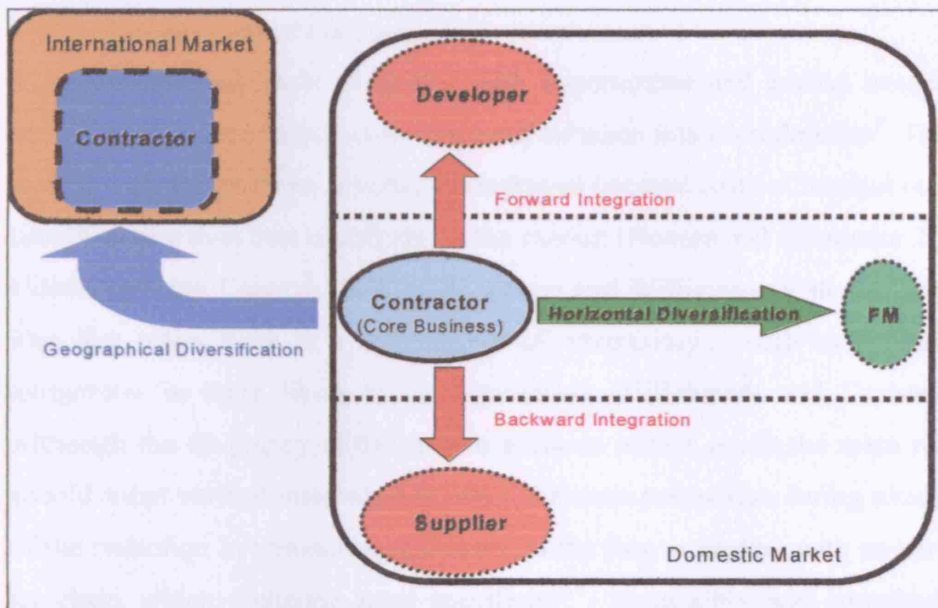


Figure 2.2: Forms of diversification (Source: adapted from Johnson and Scholes 2002, p.298)

## 2.6 Vertical integration as strategy against business cycle

### 2.6.1 Alleviating market failure and uncertainty

The major benefits for employing vertical diversification are that it addresses the problems arising from market failure<sup>8</sup> and uncertainty which lessen efficiency (Hillebrandt and Cannon 1990, p.41). These predicaments are further exacerbated in recession, such as being unreliable on credit as in the boom period from suppliers or shortage of materials. This causes discontinuity of project process handling, leading to delay in construction work. By implementing vertical integration, especially controlling the source of supply of materials, firms are capable of stabilising the environment in which they work (Langford and Male 1991, p.20). Davies (2001) also advocates that the continuous workflow can be achieved through vertical integration.

<sup>8</sup> Problem that arises from market failure are market forces do not provide the requirements of the industry at the right time, place, price, quality and quantity

### **2.6.2 Lessen transaction cost**

In an uncertain situation associated with opportunism and market irregularities during recession, huge transaction costs that must be taken into consideration<sup>9</sup>. The best solution to deal with this problem is vertical integration because costs of internal co-ordination are usually lower than cost of relying on the market (Douma and Schreuder 2002, p.145 and Hillebrandt and Cannon 1989, p.33). Coase and Williamson's studies also support this idea that when there is a high degree of uncertainty – such as a recession, vertical integration is more likely to be appropriate (Hillebrandt and Cannon 1989, p.32). Although the frequency of transaction between parties is not the main reason why one should adopt vertical integration in order to reduce transaction during a recession because of the reduction in transaction. However, if the firm is dealing with any activities within its chain which comprise asset specificity<sup>10</sup>, uncertainty and complexity, it is then worthwhile to undertake vertical integration (Douma and Schreuder 2002, p.203).

### **2.6.3 Creation of competitive advantage**

Since construction demand during the recession period will fall drastically, it will take a substantially period for it to recover, as demand declines due to excess capacity in the industry competition rises. In order to survive, competitive advantage, as defined by Porter (1980)<sup>11</sup>, is needed. Vertical integration increases firm's competitive advantage as it enables a contractor to control the quality of the whole chain, for example, being material supplier for upstream and developer for downstream. Moreover, According to the resource-based view, the firm possessing potential resources may be able to develop both tangible – e.g. specialise machinery – and intangible – e.g. know-how and experience – resources which are difficult to imitate by its rivals at a lower cost (Douma and Schreuder 2002, p.193).

---

<sup>9</sup> Hidden expenses called transaction costs can be generated at any transaction between two parties, caused by bounded rationality referred to information impactedness – unequal possession of information or knowledge (Williamson cited in Gruneberg and Ive 2000, p.120).

<sup>10</sup> Asset specificity means the asset which can be used in the particular type of work and is difficult to share the function with other works.

<sup>11</sup> Competitive advantage consists of cost leadership and differentiation.

#### **2.6.4 Catastrophe linkage**

Following the concept of vertical integration is expansion of the new activity in the same area as the core activity. Thus, the most crucial risk of vertical integration is catastrophe linkage<sup>12</sup>. Construction industry has its own risk inherent in cyclical demand patterns, the vertical integration cannot be regarded as a means of spreading risk. This is because vertical diversification, almost by definition, is likely to have the same cycles as the original business (Hillebrandt and Cannon 1990, p.45). Furthermore, Hillebrandt, Cannon and Lansley (1995, p.160) claims that vertical integration seems to be unprofitable and potentially dangerous, especially during a recession because of a decline in demand. Hence, it is crucial for firms to meticulously scrutinise market condition.

In their respective studies, Catherwood (1966), and Hillebrandt, Cannon and Lansley (1995, p.38) have demonstrated that during the economic upturn due to attractive market condition the majority of construction companies in the UK invested mainly in property or speculative house building. In the event of a recession, this behaviour would lead to oversupply in the market and difficulty for the firms since their assets are not able to generate revenue. This sector is perceived as the most unstable constituent of fixed investment and long-period tendency to fall (Matthews 1959, p.98). Similarly, Thai contractors, particularly those who work for the private sector, enjoy reaping vast profits from property and housing market during the boom. Once the market collapses, most of them have disappeared from the industry. While contractors who work for public sector suffered the most from possessing specific assets e.g. machinery which became sunk costs.

All in all, although it seems that vertical integration could be utilised as a responsive strategy because of being able to control supply chain, reduce transaction cost, and create competitive advantage, but due to its main constraint which is catastrophe linkage one as a priority should be aware and consider the implication of this factor.

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<sup>12</sup> Catastrophe linkage occurs in an environment where all activities are interconnected. Hence, adverse environment could bring systematic catastrophe.

## **2.7 Horizontal diversification as strategy against business cycle**

### **2.7.1 Spreading risk**

According to Lansley, *et al* (1979) and Walker (2002), flexible diversification is a necessary strategy in order for construction organisation to deal with recession. Given business cycle is inherent in any kinds of business. It would be great, if firms can compensate poor result in one business with that of a more successful one. One of the main objectives to select horizontal diversification is to spread risk, especially to reduce the fluctuations of demand which may be either seasonal or cyclical (Hillebrandt and Cannon 1989, p.35, and 1990, p.42). By undertaking horizontal diversification, firms are able to seek new areas to expand their business into a contra-cyclical market. Consequently, the firms will benefit from balancing of the company's portfolio. Though Hillebrandt, Cannon and Lansley (1995, p.127) warn that a recession can create difficulty for those who adhere to this approach.

### **2.7.2 Compensation of expansion in the existing market**

In general, during a recession overproduction in the economy as a whole directly affects contractors in the form of reduce workload (Smyth 1985, p.73). Moreover, both governments and private clients have no potential to increase their demand due to financial constraint (Winch 2002, p.27). Additionally, when demand slumps, some contractors resort to negative mark-up in order to survive. As a result, prices can fall more rapidly than index of construction costs (Gruneberg and Ive 2000, p.158), leading to firms being unable to expand their service in the existing market. In order to by-pass this problem, horizontal diversification adopted because it allows companies to enter into the new blossoming markets whether it is related or unrelated (Hillebrandt and Cannon 1989, p.34). Therefore, firms will benefit from the flexibility during and after recession. Nevertheless, in order to guarantee the feasibility of success, those new markets should be thoroughly considered to ensure that profit could be harvested in the long term (Ansoff, 1969). This is because cost of investment could lead to financial problem during the downturn, particularly the investment in cash-hungry business.

### **2.7.3 Efficient use of resources**

In recession, a number of empirical evidences suggest that many organisations face the problem of overcapacity. Based on resource-based view theory, firms can develop the diversification strategy through their existing assets, especially by utilising the excess capacity of productive factors, here called resources (Penrose 1959 cited in Montgomery 1994, p.167). Additionally, Montgomery (1994) states that firm's resource stock influences the level of profit and direction of diversification. This is relevant to core competencies approach introduced by Hamel and Prahalad (1990) that success could be based on cultivating core competencies. By diversifying horizontally, particularly those that are related to core competency, enables the organisation to utilise one resource in more than one activity achieving economic of scope. Likewise, the related resources could be devoted to the stronger line of business, when one market line declines (Ansoff 1969, p.292). The former and the latter are perceived as synergy (Teece 1980 and Grant *et al.* 1988 cited in Aleson and Escuer 2002, p.122) and flexibility respectively which are needed in order to respond to the crisis.

### **2.7.4 Competitive advantage**

As well as vertical integration, competitive advantage can be created through horizontal diversification. This is because when firms expand the breadth of their line of products or services it leads to an increase in market power (Montgomery 1994, p.165). By expansion, the firms would gain client recognition in term of differentiation. For instance, some contractors might add a design stage into their corporation, called design and build (D&B). Clients will benefit from e.g. single-point responsibility, continuity of working process and even cost saving or price certainty – cost leadership (Turner, 1997 and Franks, 1998). All of these are necessary competitive strategy in the complex environment that is embodied in a crisis.

### **2.7.5 Unmanageable condition**

Despite all the strong points of horizontal diversification, there is also a weakness that firms should be aware of. Certainly, a horizontally diversifying firm may encounter unfamiliar situation, natural of entering into a new area. Given the inexperience, manager could face unmanageable problems, which might lead to failure. The research of



Hillebrandt, Cannon and Lansley (1995) reconfirms this by illustrating that many businesses acquired by construction firms before the crisis became unprofitable in the recession. This is because most of non-construction businesses are often capital intensive. In the boom construction companies had money to invest, while in the downturn the shortage of capital and fund results in firms being unable to maintain those businesses (Hillebrandt, Cannon and Lansley 1995, pp.63 and 160). Penrose (1959), Chandler (1962), and Hitt *et al.* (1994) state that costs of such as distribution or training new managers or increase in coordination and control problems emerge in the organisation which diverges from its core business. In addition, the marginal profits generated by high level of diversification i.e. those that are far removed from core competence will be perceived as a decline in the profitability (Aleson and Escuer 2002, p.123).

## **2.8 Geographical diversification as strategy against business cycle**

### **2.8.1 Spreading risk**

The way to overcome the problem of economic cycle is to spread operations to other locations so that at least the ups and downs of national cycles do not coincide (Hillebrandt and Cannon 1990, p.44) since the construction industry in each nation has its own cycle i.e. the timing of business cycle in different countries is generally unsynchronised. Hence, geographical diversification is as successful at spreading risk as horizontal diversification, and perhaps even better. Hillebrandt and Cannon (1989, p.34) also supports that geographical diversification increases the stability of profits by spreading risk or reducing the proportion of high risk businesses in the “portfolio” of the company. Geographical diversification strategy would enable firms to reduce and avoid risk, for instance, it will deal with fluctuation in the demand of domestic market and provides a room for surviving in the recession.

### **2.8.2 Flexibility and efficiency use of resources**

Barney (1991 cited in Aleson and Escuer 2002, p.122) claims that firms diversified geographically based on resources based view of the firm will benefit from efficient use and flexibility of resource. This is similar to horizontal diversification ability to cope with a recession (see 2.7.3, p.18)

### **2.8.3 Competitive advantage**

Being an internationalised organisation can create competitive advantage. For instance, the multinational organisation will be able to promote its name through various nations both directly and indirectly since brand name can be shared across markets and regions (Douma and Schreuder 2002, p.209), which would also reinforce the potential of the firm. In addition, Huemer *et al.* (2000) state that internationalisation strategy can provide wider knowledge and experience which learnt from different locations to the organisation. This can increase organisation's efficiency. If new technological knowledge and broader experience can be applied to learning organisation to improve its performance e.g. new technique learnt from overseas projects which help to reduce cost (Hillebrandt and Cannon 1989), that new knowledge may help firm to create competitive advantage and dominate domestic rivals whose knowledge is limited.

### **2.8.4 Complexity and Uncertainty**

Uncertainty and complexity are major obstacles to internationalisation (Langford and Male 2001 p.132). Kogut and Kulatilaka (1994 cited in Young Baek 2003, p.3) argue that multinational company is more vulnerable due to flexibility options under uncertainties changes in government policies in some part of the world, especially in developing countries (Mawhinney 2001, p.3). Not only would political problems become uncontrollable since the sites of projects are undertaking in far away and unfamiliar regions, but firms would also encounter different economic characteristic, customers, culture, politic and beliefs about management which would heighten problem(s) (Pennings, Barkema and Douma 1994, p.612). Especially in a recession of unfamiliar regions, those factors could become more severe and bring about extreme disaster.

### **2.8.5 High operating cost and difference of climate and geography**

The empirical evidence demonstrates that overseas project costs are perhaps one or two times as those of domestic projects of the same size (Hillebrandt and Cannon 1989, p.122). Those costs are generated from heavy coordination costs which may not be offset by the benefits derived (Wah 1998, p.207). In addition, this problem would be significant for faraway overseas projects. Finally, climatic and geographic risk such as flood or other

natural phenomena mentioned by Howes and Tah (2003, p.78) could cause further operational difficulties because of its unpredictable nature and unfamiliar surrounding.

## **2.9 Means to growth through diversification**

Diversification strategy can be done through two methods, internal or external growth. External growth consists of methods such as merger, acquisition or takeover, and joint venture<sup>13</sup>. Internal growth<sup>14</sup> enables the organisation to accumulate knowledge such as market knowledge which creates competitive advantage over its rivals. Furthermore, avoiding political or cultural problems arising from clash culture between two organisations in post-acquisition integration is another advantage (Hillebrandt and Cannon 1989, p.32, and Johnson and Scholes 2002, p.375). However, in a dynamic environment, such as recession, relying upon internal development may be too slow as it requires, for example, the time to recruit and train skilled personnel (Hillebrandt and Cannon 1989, p.32).

To expand within rapid change, those external developments seem to be more appropriate because of its speed (Ansoff 1969, pp.30 and 290, and Johnson and Scholes 2002, p.275). While acquisition may require a greater amount of payment, compared to the other, this could be a constraint during the recession. However, it does facilitate operation of the organisation due to clarity of ownership. For overseas expansion, the ease of joint venture formulation makes merger strategy a low priority due to lower risk and higher speed – effective cooperation, trust, clear goals and compatibility are successful keys<sup>15</sup> (Langford and Male 1991, p.93, and Johnson and Scholes 2002, p.278). All in all, it can be summarised that to chose any ways of development is dependent upon the company's capability and the condition of market environment.

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<sup>13</sup> Joint development is where two or more organisations share resources and activities to pursue a strategy (Johnson and Scholes 2002, p.378).

<sup>14</sup> Internal development is where strategies are develop by building up an organisation's own resource base and competences, sometimes called organic growth (Johnson and Scholes 2002, p.374).

<sup>15</sup> See more Johnson and Scholes 2002, p.383

## **2.10 Trend of diversification affected by recession**

The discussion below is based mainly on Hillebrandt, Cannon and Lansley (1995)

Economic crisis can bring about the change in form and direction of diversification. This is because, sometimes, anticipated plan, whether vertical horizontal or geographical diversification may not reflect expected results. Observing the experience of UK contractors, during 1980's boom, their turnover grew considerably, therefore in order for long term growth they were diversifying into both construction-related businesses and little-connected businesses. However, once recession had set in, most of those businesses, particularly unrelated activities, as a reason of immediate survival were sold off. From the experience, most of them stressed they would not go into unconnected business again. Some had moved on to public sector or utility concession, while the development of specific niche market as specialised contractors becomes another strategy to reduce high competition.

The overseas construction markets were the areas that had been neglected during the construction boom in the UK. Although they possess the capability to do so, most chose to operate domestically (Langford and Male 1991, p.93). Internationalisation was considered seriously after the domestic market declined and as a result of wanting to spread risk to contra-cyclical areas. This situation, I believe, can also apply to Thai contractors who emphasised upon only domestic works and some large contractors had undertaken projects abroad but not continue because they had never thought about the reduction of workload.

After the crisis, the UK contractors do not see the need for control over a wide range of site-related activities such as the possession of supplying organisation. They believe that the marketing is capable of dealing with segment activities. In addition, by introducing supply chain management in which value can be added through the chain, transaction by relying on market may be more advantageous, especially during the recession as they do not possess a high number of fixed assets.

Following the discussion above, this raises the interesting issue to investigate the opinion of Thai contractors related to impact of latest recession. By understanding their diversification concept based on lesson learnt, it may help us to ascertain the trend and pattern of diversification in the country which will be useful to assess the validities and limitations of those selected diversification strategy.

## **2.11 Hypotheses: Diversification as strategy against business cycle**

### **2.11.1 Diversified versus non-diversified firms**

Gort (1962), Arnold (1969), and Markham (1973), empirical findings demonstrate that the profitability of diversified firms is similar to that of undiversified ones. The performance is, however, dependent upon the level of diversification. This means that not every diversified firm will benefit from diversification. Although the results are not always statistically significant, empirical studies of Westerfield (1970), and McDougall and Round (1984) found that product diversifiers enjoy higher profit than non-diversifiers (Kim, Hwang and Burgers 1989, p.46). And also, related diversified firms have higher profitability than non-diversified firms (Amit and Livnat 1988, p. 99).

*Hypothesis 1: Diversified firms are more likely to succeed than non-diversified firms at combating business cycle.*

### **2.11.2 Related versus unrelated diversification**

In both recession and post recession, the main objective of using diversification is to increase profit since it ensures survival. According to the discussion above (see section 2.4, pp.11), related diversification due to sharing resources and activities, leading to synergy and economic of scope<sup>16</sup> obviously outperforms unrelated diversification (Goold and Luchs 1996, p.308). Though Porter (cited in Goold and Luchs 1996, p.308) argues that sharing could lead to disadvantage, for example, firms might face organisational resistance. Nonetheless, diversifying into unrelated activity could raise some problems which may lead to non-profitability (Pennings, Barkema and Douma 1994, p. 610).

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<sup>16</sup> Economic of scope exists when joint production is less costly than the cost of producing separately (Douma and Schreuder 2002, p.206)

*Hypothesis 2: Related diversification is more likely to succeed than unrelated diversification at combating business cycle.*

### **2.11.3 Vertical integration versus Horizontal diversification versus Geographical diversification**

By taking account of three forms of diversification – vertical, horizontal and geographical diversification, all of them possess the potential to create opportunity for growth and competitive advantage, although in different ways. However, the potential for spreading risk and flexibility is deemed to be the strength of horizontal and geographical diversification rather than vertical integration. To use each type efficiently, organisation has to analyse their strengths and weaknesses thoroughly through SWOT or Porter Five Forces, particularly for overseas activity PEST should be concerned (see more Johnson and Scholes 2002, Porter 1980, and Male 1991). However, each of those strategies has its own prominent points which can be selected to fight in different circumstances.

*Hypothesis 3: Horizontal and geographical diversification is more likely to be practised than vertical integration at combating business cycle.*

## Chapter 3: Research Methodology

In undertaking this research I will rely upon both quantitative and qualitative approach to study and investigate the relationship between diversification and Thai construction firms.

### 3.1 The criteria of samples

Firstly, the criteria have been set in order to select the most appropriate construction firms which are relevant to the content of the topic. Since I want to study the general trend of the Thai construction industry, I am compelled to set the following criteria for my samples.

1. The sample must be Thai construction company and owned by Thai people
2. The sample must be based in Bangkok, Thailand
3. The sample must be a member of Thai Contractor Association (TCA) <sup>17</sup>
4. Both Public Company Limited (PLC) and Company Limited firms have been consider <sup>18</sup>
5. The sample must be amongst top 20
6. The sample must be established before 1997 crisis <sup>19</sup>

Table 3.1: Criteria of samples

The reason to approach the top 20 Thai construction firms was because these firms are market leaders, moreover they are comparable in size and activities. Initial expectation was that at least 15 firms would have cooperated since it should be sufficient to statistically calculate to find the representative of each group of diversification which could be effectively used for our analysis.

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<sup>17</sup> The reason for choosing the firms listed in TCA is to use the ranking established by TCA. This is because TCA is only one institute which arrange the rank of a construction firm. The ranking excludes firms which are not a member. However, most of the large construction companies are the member. This can ensure the quality of the sample.

<sup>18</sup> As a result of limitation of PCL companies in Thailand, in order to get a sufficient sample the Company Limited firm has to be involved in the selection.

<sup>19</sup> This is for enabling to examine the company's performance since the peak of crisis.

Among the top 20 firms, 4 are PLC companies; therefore, their financial data is in published annual report. For the others since they are limited companies, I had to approach them directly to get their financial statements. Unfortunately, only 5 companies were willing to show their statement. The rest declined on the grounds that financial statement is private and secret information which may affect their image and competition. This secretive nature is a natural characteristic of Thai construction firm, particularly family-run business, which other researchers have to bear in mind as a barrier. Therefore, the amount of company's financial statement that I have gathered, including PLC, amounts to 9 companies. While it might be seemingly insufficient for a statistical analysis, I however believe that these samples can provide some effective indicative results since those are still the leader in the industry and their directions are indicative of future trend.

Furthermore, I will also rely upon the interview as my method of data gathering. I have interviewed in depth the management of 11 companies and the analysis of this study will also be based on the management comment. The interview is open-ended. The way to approach the answer is to try not to mention about diversification. This is because the results may be biased as they would try to say something related to diversification. Then, having made an interview, the data from an interview has been rearranged related to diversification (see Appendix F).

### **3.2 Measurement use of the study**

The successful study and analysis of this research is dependent upon determining 2 issues 1) measurement of diversification level and 2) measurement of financial performance, which would allow us to investigate the validity of hypotheses.

#### **3.2.1 Measurement of Diversification Level**

From Rumelt's (1974) framework, in order to identify the magnitude of the companies' diversification there are two ratios:

1. *Specialisation Ratio* (SR) – the proportion of a firm's revenues that is attributable to its largest discrete product-market activity.
2. *Related Ratio* (RR) – the proportion of a firm's revenues that are attributed to the largest group of businesses that are related in some way to another one.



According to Rumelt (1974), the level of companies' diversification can be classified as following:

Type of Business	SR and RR Ratios
1. Single Business	SR > 95%
2. Dominant Business	95% > SR > 70%
3. Related Business	SR < 70% and RR > 70%
4. Unrelated Business	SR < 70% and RR < 70%

Table 3.2: Types of business relate to specialisation ratio and related ratio

To classify related and unrelated activity to construction, firstly, all activities of the firm will be broken down in detail to identify the actual activity operating prior to grouping the similar activities together. This can help to find the proportion of each activity in relation to turnover. Then, Standard Industrial Classification 1992 (SIC 92) is utilised to classify those sets of activities. An activity which is not involved in the summary of SIC 92 definition of construction and related activities demonstrated by Ive and Gruneberg (2000, pp.25-28) will be accounted as an unrelated activity (see Appendix D).

### 3.2.2 Measurement of Financial Performance

Performance is concerned with the achievement of a firm's objective, related to the activities of the firm and environment. During a recession, the aspect of most concern is to survive and then grow. Likewise, profitability and efficiency are also the main concern of every company, which helps firms to overcome business cycle. Therefore, financial performance of the firms will be examined through the variables, as follows:

1. Turnover growth
2. Net profit growth
3. Profit margin (PM)
4. Return on capital employed (ROCE)

In order to investigate the companies various activities during the recession period, available financial data will be examined from 1997 – the year of crisis – to 2004. Furthermore, information from conducted interview would also be scrutinised. The analysis of my hypotheses would illustrate significant results from which could be drawn a conclusion.

Company	Abbreviation	Activities	Interview	Financial data
Italian-Thai Development	ITD	Construction, Mining, Concession, Education, Manufacturing, Plant hire	a	a
CH. Karnchang	CK	Construction, Mining, Concession, Manufacturing	a	a
Nawarat Patanakarn	NWR	Construction, Manufacturing, Concession	a	a
Ritta	-	Construction, Design	a	a
Power Line Engineering	PLE	Construction, Electrical installation and fittings	a	a
See Sang Karn Yotah	SKY	Construction, Manufacturing	a	na
NL Development	NL	Construction	a	a
Siphya Construction	-	Construction	a	na
AS Associated Engineering (1964)	AS	Construction, IT services, Trading, Concession,	a	a
MC. Construction	MC	Construction	a	a
Kamphaeng Phet Wiwat	KPV	Construction	a	a

Table 3.3: Company's activities and data available

a= available data

na= Non-available data

## Chapter 4: Findings and Analysis

Amongst 11 samples, there are 2 companies which their financial data is unavailable. Thus, the financial performance of only 9 firms will be analysed, while the 2 remaining companies will be included in the management comment analysis.

### *4.1 Hypothesis 1: Diversified firms are more likely to succeed than non-diversified firms at combating business cycle.*

The table 4.1 and 4.2 below demonstrate financial performance between diversified and non-diversified companies. The firms' percentage of sales growth and net profit growth over 6 years, from 1997 to 2004, will be examined. However, in order to make the calculation related to diversification, the non-diversified firms which became diversified firms after the crisis will be examined according to when diversification begins to generate revenue (See Appendix C). The formula used to calculate average percent change over period as used by Ansoff *et al.*, (1971) is:

$$\text{Average per cent change over period} = \frac{100 * X_n - X_1}{N * X_1}$$

Diversified Company	Sales Growth (%)	Net Profit Growth (%)
	1997-2004	1997-2004
Italian-Thai Development (ITD)	4.22	122.37
CH.Karnchang (CK)	-5.51	26.02
Nawarat Patanakarn	-1.42	17.62
Power Line Engineering* (PLE)	74.39	189.47
AS Associated Engineering* (AS)	4.45	8.35
Ritta	76.90	49.90

Table 4.1: Financial performance of diversified company

\* AS and PLE have started diversifying in 1999 and 2000 respectively.

Non-diversified Company	Sales Growth (%)	Net Profit Growth (%)
	1997-2004	1997-2004
NL Development	13.72	25.21
Kamphaengphet Vwat (KPV)	-14.51	-592.97
MC Construction	-4.32	12.03

Table 4.2: Financial performance of non-diversified company

The tables above show the growth of diversified companies' turnover after the crisis. There are only two negative samples, whereas the other four companies show the positive growth, in particular PLE (74.39%) and Ritta (76.9%). The turnover growth of non-diversified companies over the same given period shows that two of the three companies experienced negative growth. As for the net profit growth, every company that diversify demonstrates positive net profit growth. In particular, ITD and PLE, whose net profit has grown well over 100%. This is a stark contrast to the non-diversified firms, whose results show various levels of net profit growth. Especially, the net profit rate of NPV has dropped drastically, -592%, after the crisis, and MC's rate is also relatively low.

The overall appraisal of the results shows that rate of diversified companies' growth, both turnover and net profit, is greater than non-diversified companies. This is because according to the growth theory diversification creates the various chances to grow and spread risk. Additionally, all interviewees perceive that as a result of the recession, it is harder to grow in the same way as they did prior to the crisis, which is to rely upon only one activity and one market, because of fewer projects and clients' financial constraint. Furthermore, they, both diversified and non-diversified companies, also confess that they have been planning to expand the scope of business whether it is related or unrelated activity whenever their resources are ready

Therefore, the first hypothesis has been proved that diversified company outperform non-diversified companies during the recession. Hence, it is interesting to analyse further what type of diversification – related and unrelated diversification – is more superior.

#### ***4.2 Hypothesis 2: Related diversification is more likely to succeed than unrelated diversification at combating business cycle.***

In this section, the financial performance of 6 diversified firms will be examined, while in addition, the management comment related to the hypothesis will also be investigated. The results will effectively tell us whether or not related diversification outperforms unrelated diversification. In order to substantiate this proposition, RR and growth rate will be investigated. By comparing the relatedness level to financial performance, the result will illustrate the relationship between the firms' performance and different type of diversification, as demonstrated in Table 4.3.

Diversified Company	RR (%)	Sales Growth(%)	Net Profit Growth(%)
		1997-2004	1997-2004
Power Line Engineering (PLE)	100	74.39	189.47
Ritta	100	76.90	49.90
Nawarat Patanakarn	97	-1.42	17.62
Italian-Thai Development (ITD)	93	4.22	122.37
AS Associated Engineering (AS)	85	4.45	8.35
CH.Kamchang (CK)	76	-5.51	26.02

Table 4.3: The relationship between Related Ratio (RR) and firm's performance

Although there is no sample which can be categorised as typical unrelated diversification (RR < 70%), the correlation between financial performance and RR clearly demonstrates that the investigated firms which possess high RR, PLE and Ritta, are more likely to be the better performer. In contrast, the lowest rate of sales and net profit growth belongs to CK, -5.51%, and AS, 8.35%, respectively.

Additionally, the PLE, the best performer, stresses:

*...related diversification enables the company to use resources more efficiently, especially in the recession when certain resources such as machinery or staff in one declining activity can be shifted to other areas...*

(Mr Swake Srisuchart, Chairman of PLE)

From the experience of ITD, which used to be a highly diversified company before the crisis, the majority of businesses discarded during the recession were those which were unrelated or low-related to its core business. This situation is similar to the study by Hillebrandt *et al.* (1995) which shows UK contractors had to surrender most of unrelated business during 1990's recession. In addition, Ritta, the runner-up, comments that high product or service diversification seems to be an out-of-date strategy since most companies which were high-level diversification, whether they were in the construction industry or other industries, all faced difficulty maintaining various businesses. All in all, based on lesson learnt from the latest recession, all interviewees agree that diversification ought to be related to the firm's core competence.

On the question, which diversification method is more superior, both qualitative and quantitative findings reflect similar conclusion of earlier research as exemplified by Ansoff (1965), Palepu (1985) and Rumelt (1987), that related diversification is more outstanding because it enables the firms to expand the scope of exploitation, leading to increase in synergy, which could enhance the firm's competitive advantage (Marides and Williamson, 1994). Hence, this study finds that related diversification is more likely to be considered as a strategy against business cycle.

### 4.3 Hypothesis 3: Horizontal and geographical diversification is more likely to be considered than vertical integration at combating business cycle.

In this section, the three forms of diversification<sup>20</sup> will be investigated and analysed in order to identify the most appropriate form of diversification to combat business cycle and anticipate the trend of diversification in Thai construction industry. The financial data and ratios, consisting of Turnover, Profit Margin and Return on Capital Employed (ROCE), from 1997 to 2004 will be taken into account and compared with the different forms of diversification. Furthermore, this analysis will also include the companies' comment. However, to measure the performance of the investigated firms which their financial data is unavailable, official ranking provided by TCA will be used as an indicator in stead (see Appendix B).

#### 4.3.1 Forms of diversification aggregate findings

The diversification forms currently undertaken and those that will be utilised in the near future are summarised in table 4.4. Then, the reason why each form of diversification has been selected as a strategy to deal with the business cycle will be investigated.

Form of Diversification	Year 1997-2004		Type of Activity	Year * 1997-2004		After Year* 2004	
	No. of firm	%		No. of firm	%	No. of firm	%
Vertical Integration	3 of 7	43%	Developer	0 of 7	0%	4 of 11	36%
			Construction service**	1 of 7	14%	0 of 11	0%
			Construction Material Supplier	2 of 7	28%	0 of 11	0%
Horizontal Diversification	5 of 7	71%	Concession	4 of 7	57%	6 of 11	55%
			Trading	1 of 7	14%	0 of 11	0%
			IT Service	1 of 7	14%	0 of 11	0%
Geographic Diversification	3 of 7	43%	Construction service	3 of 7	43%	11 of 11	100%
			Concession	1 of 7	14%	2 of 11	18%

Table 4.4: The findings of three forms of diversification

\*Note that the current trend is excluded the non-diversified firm, while the future trend includes all samples.

\*\* Note that PLE's initial activity is Electrical installation and fittings

<sup>20</sup> There are three forms of diversification which are vertical integration, horizontal diversification, and geographical diversification.

#### **4.3.1.1 Vertical integration strategy**

In general, the majority of the contractors do not agree with utilising vertical integration, whether to diversify backwardly (e.g. supplier) or forwardly (e.g. developer), during a strong depression. Partly based on the lesson learnt from 1997 crisis, there are two main views on this opinion. Firstly, the development sector was the one which was severely affected during the crisis because developers were unable to sell the property that they possess since the building and housing demand declined drastically. Many contractors who expanded to the sector faced financial problem. Some companies<sup>21</sup> argue that their survival was due to the fact that they fortunately did not decide to become a developer which generated a high return during the boom, even though they had a chance.

Secondly, for backward integration, those contractors also disagree with this strategy, even more than forwards diversification. They have never thought about being a supplier, especially basic construction material. Because, during a recession, the price of basic material will fall sharply in parallel to the decrease in construction demand, since in order to pass on their overproduction suppliers had to offer a lower and more competitive price. This suggests that suppliers are also vulnerable during the crisis. Moreover, high investment cost could become sunk costs as a result of a recession. Different know-how required to operate is another reason that heightens the dissenters' rejection of backwards integration.

Essentially, the main concern of those contractors is "Catastrophe Linkage" which Hillebrandt *et al.* (1995) define as the potentially dangerous of vertical integration in recession. The dissenters mention that although they know that vertical integration can directly support the core business, it may create inflexibility and risk since it relies upon only one market.

Despite the overwhelming objection to this strategy, the investigation shows that there are three companies which have utilised this form of diversification, namely ITD, SKY and PLE. These companies have diversified backwardly in different levels based on their

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<sup>21</sup> KPV, MC, NL, PLE and Ritta



resources and characteristic of the company itself. The activities are illustrated in the table 4.5 below.

Company	Year of Diversification	Type of Activity
ITD	2003	Cement manufacturing
PLE	2000	Construction service
SKY	1997	Jacking pipe ranking and precast caissons manufacturing

Table 4.5: Type of company's activity in vertical integration form

ITD expanded into cement manufacturing because it views that such a move would lead to reduction of transaction cost and market failure, and an increase in competitive advantage. Although most of the contractors are oppose to this strategy, it is my contention that since ITD is the largest construction firm in Thailand and it also possess the largest portion of market share in Thailand (SET, 2004), considering the amount of workload that ITD possesses, it is more than reasonable that ITD should supply itself. However, this strategy might not be appropriate nor viable for the smaller firms.

Interestingly, SKY<sup>22</sup> also chose to diversify to be supplier, but in the different level done by ITD. SKY, since 1997, becomes a specialise supplier, producing Jacking Pipe Ranging and Precast Caissons which is used particularly for an underground construction project. From the recession, SKY has learnt that when the amount of projects was lower, many contractors had to “buy work” to survive, leading to unrealistically low bidding price and higher competition. This situation was significantly severe for general contractor<sup>23</sup>. SKY therefore conceived that as a specialised and an underground and tunnelling expert, it allows the company to operate in higher profit projects with less competition. The competitive advantage defined by Porter (1980) has been created as a result of both cost leadership – produce its own materials – and differentiation<sup>24</sup> – product

<sup>22</sup> SKY's main client is public sector, particularly infrastructure projects such as highway, road and bridge.

<sup>23</sup> General contractor means that the contractor who can undertake the general project which requires normal know-how such as highway or road construction project.

<sup>24</sup> SKY explains that their capability of their cutting-age precast factory is greater than the existing suppliers. This is because their factory can produce the largest Jacking Pipe Ranging at the moment, from ID 300 millimetres to ID 3,000 millimetres, while others' capacity can produce only ID 200 millimetres to 2,000 millimetres.

is specialised after using the strategy. Although there is no financial evidence, the shift of its ranking from 17<sup>th</sup> in 1997 to 10<sup>th</sup> in 2004 (TCA, 2004), does however illustrate the success of this strategy. Considering the risk of “Catastrophe Linkage”, SKY argues that while the company is well aware, it is not worried because:

*...since the specialised activity serves public sector, they believe that whether or not there will be recession, the infrastructure projects, mainly supported by government, still has to be constructed in order to develop the country. And, underground projects such as subway and telecommunication system will increase continuously for at least 20 years time...*

(Mr Suthee Wongsirojkul, Director of SKY)

In the case of PLE<sup>25</sup> in 2000, it put into action its diversification programme by taking over a construction company<sup>26</sup>. It reasons that by expanding into the new line of service, the company is able to “tie up” two related activities in the same chain. By the integration, PLE can offer to clients lower prices through package service; therefore market control can be gained at this point. The figure 4.1 and 4.2 below demonstrate the trend and relationship between vertical integration and firm’s performance.

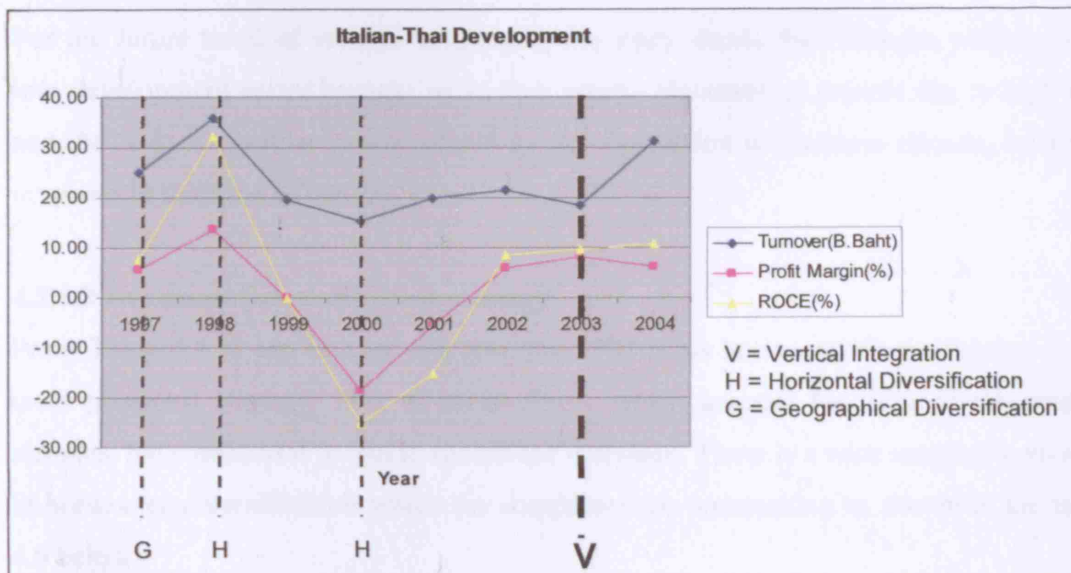


Figure 4.1: ITD’s financial performance

<sup>25</sup> Note that PLE’s initial activity is installation of electrical wiring and fittings.

<sup>26</sup> Unima Engineering Co., Ltd.

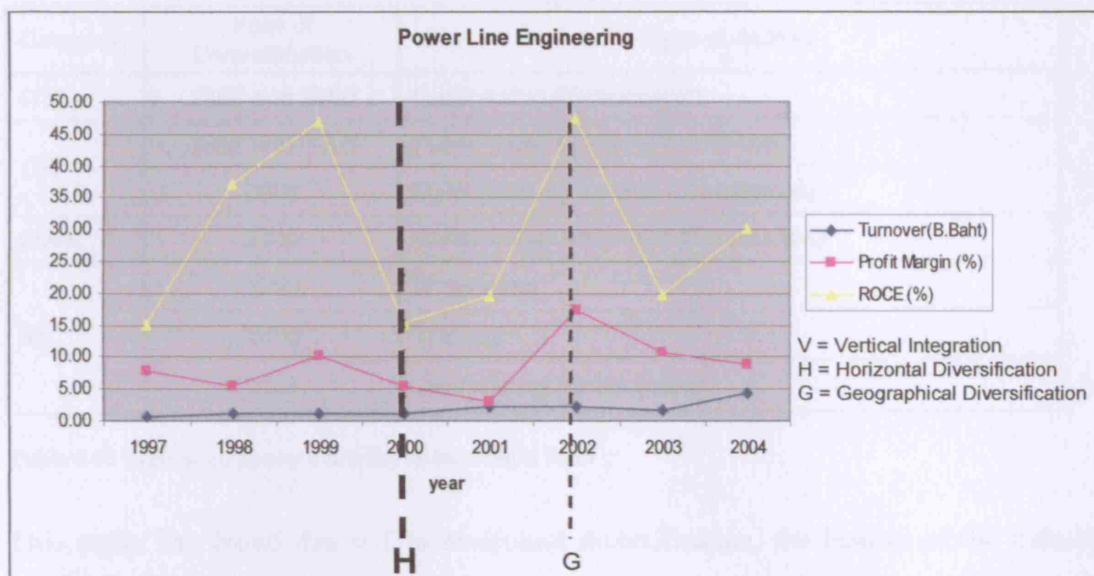


Figure 4.2: PLE's financial performance

The figures above illustrates that since ITD's diversification in 2003, turnover has increased steadily. As well as PLE, the financial performance went up from 2000 to 2002 after vertical integration has been activated. Therefore, we could safely imply the validity of this kind of diversification in the period of post recession.

For the future trend of vertical integration, the study shows that 36% are willing to go into development sector because of its high return. However, at present due to high risk and the lack of confidence engendered by the fluctuation of business climate, none are involved in this kind of activity.

#### 4.3.1.2 Horizontal diversification strategy

From Table 4.4, it can be seen that after the 1997 crisis horizontal diversification is the most preferred strategy. Five of seven firms, which account for 71% of the studied samples, have utilised it to tackle against the recession. There is a wide range of activities in horizontal diversification which the companies are undertaking as shown in the table 4.6 below.

Company	Year of Diversification	Type of Activity
ITD	1998 and 2000	Coal mining (Concession)
CK	1998 and 2003	Public water supply (Concession)
	2003	Metro subway service (Concession)
NWR	2000	Waste water treatment (Concession)
AS	1999	IT services
	2000	Trading
	2001	Coal mining (Concession)

Table 4.6: Type of company's activity as horizontal form

This study has found that within horizontal diversification, the leaders of the industry have become interested in concession and have continuously expanded into this sector since the economic downturn. Interestingly, the percentage of the contractors who shift to be concessionaire is well over 50%. Furthermore, concessions undertaken are all related to public utility<sup>27</sup>. NWR gives the reason to expand into public utility sector as:

*...though horizontal diversification related to public utility like waste water treatment concession may not generate high income, long term revenue is ensured, even in a recession. Because whether a recession or not, people will still have to consume those utility....*

(Mr. Vajraput Vajarabhaya, manager strategic planning division of NWR)

This trend is similar to the UK contractors who have expanded in the long term concession (Hillebrandt 1995). According to Ive and Gruneberg (2000), the economic theory suggests that industries producing consumption goods and services (e.g. public utility) will face less instability of demand than investment goods and services industries (e.g. construction industry). Therefore, by balancing their portfolio from being dependent upon the investment demand to consumption demand which is more stable, particularly in the recession period, Thai contractors are behaving according to the mentioned theory. Theoretically, they are on the right track in their search for strategy combating business

<sup>27</sup> The undertaking concessions consist of coal mining, water supply and waste water treatment have been served to the Electricity Generating Authority of Thailand (EGAT), Metropolitan Waterworks Authority (MWA), and Bangkok Municipal Government (BMG)

cycle. Likewise, there are some contractors<sup>28</sup> who are also looking for the opportunity to expand into utility concession market in the next few years. This idea is supported by Ansoff (1969) who suggests that new markets should make certain profit and be harvested in the long run.

In case of AS, since the company has perceived that the key factor for surviving during the uncertain environment as a recession is flexibility (Ai-Lin, p.210), apart from diversifying to concession, they have also opened new line of businesses; IT services and trading. These two businesses were chosen because of its flexibility i.e. low labour-intensive and low capital-intensive nature which would allow the activities to easily expand or shrink according to circumstances which firms are facing.

However, by considering the financial performance of the company utilising the horizontal diversification, overall, the findings illustrates that this kind of diversification does not stimulate the companies' performance much, as shown in the figure 4.3-4.6.

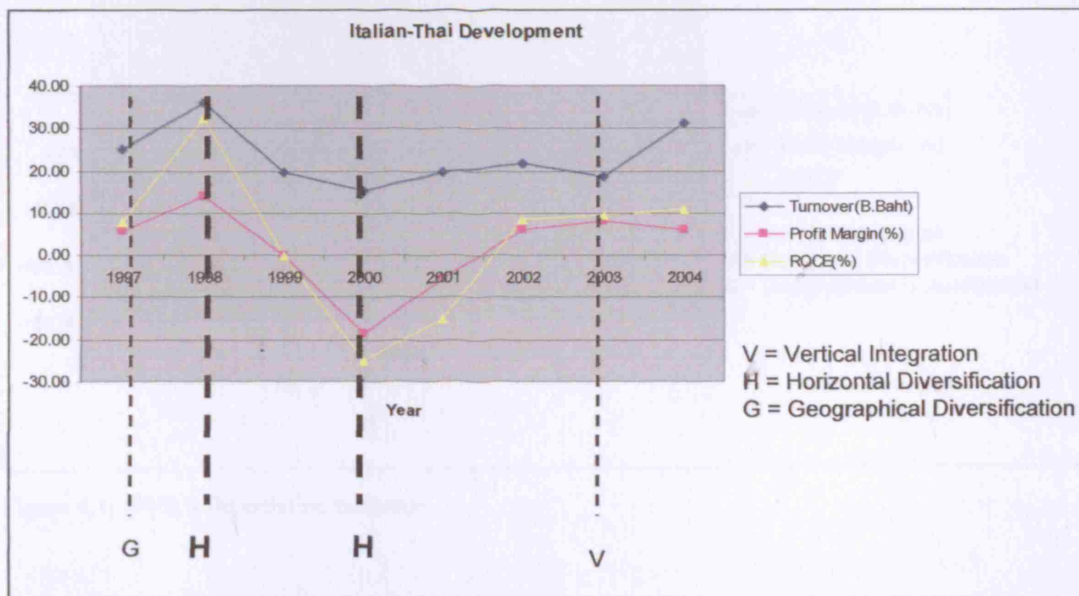


Figure 4.3: ITD's financial performance

<sup>28</sup> PLE, CK and KPV



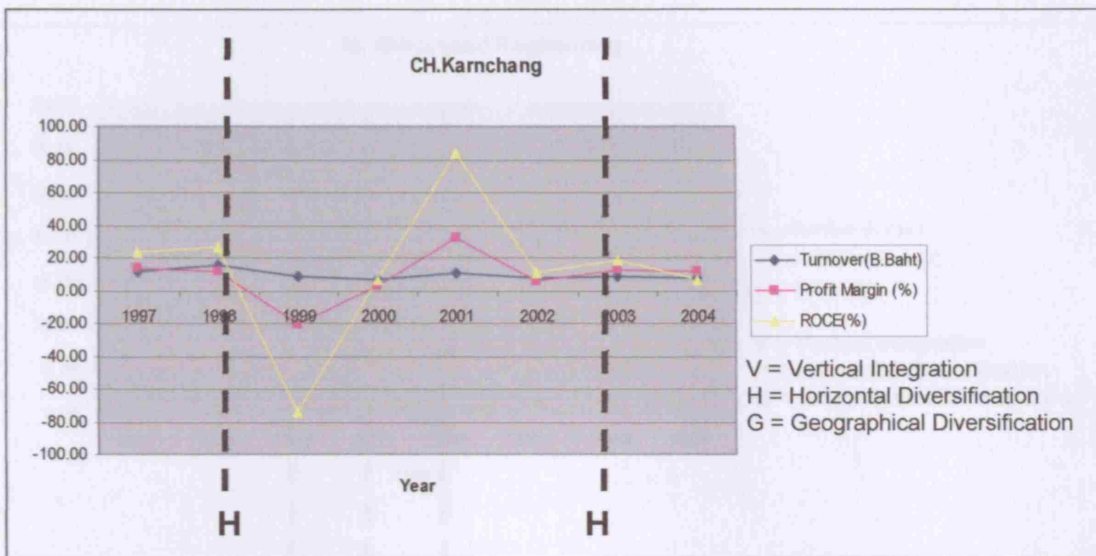


Figure 4.4: CK's financial performance

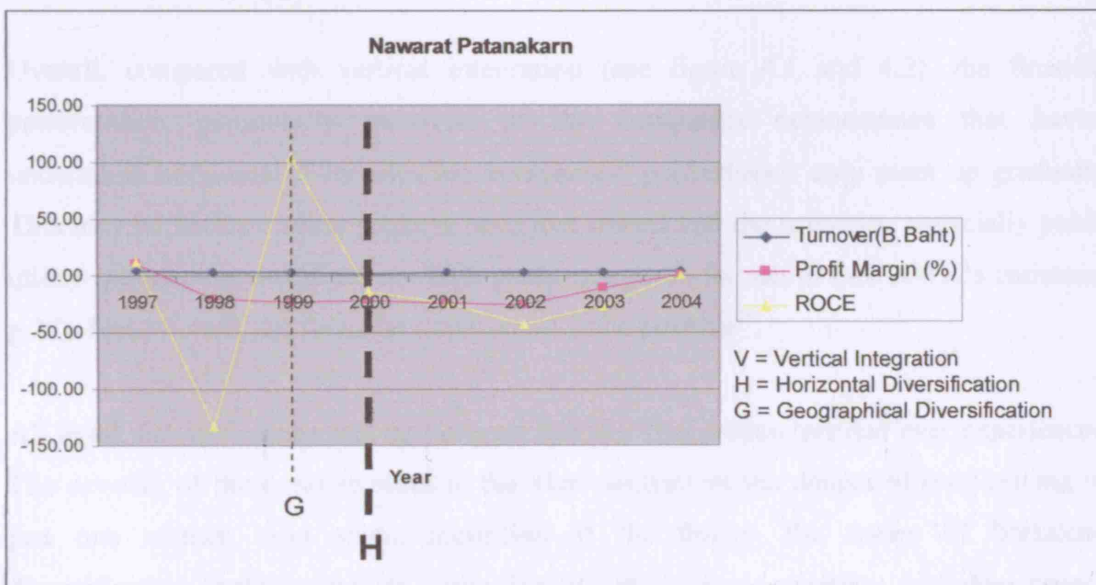


Figure 4.5: NWR's financial performance

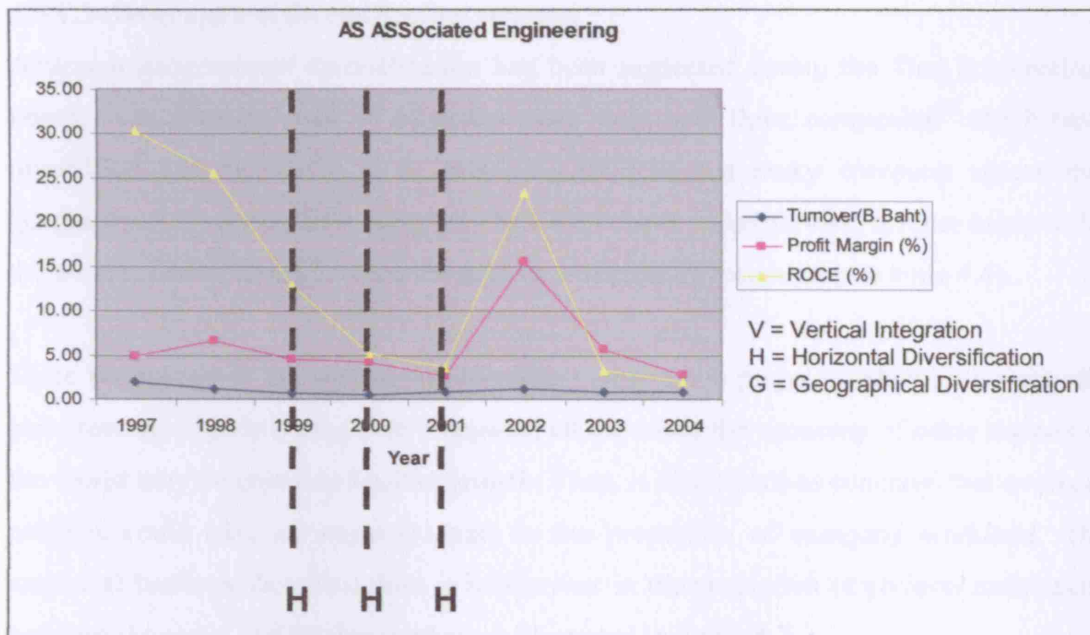


Figure 4.6: AS's financial performance

Overall, compared with vertical integration (see figure 4.1 and 4.2), the financial performance, particularly turnover, of the companies demonstrates that having undertaken horizontal diversification companies' performance only went up gradually. This may be because some projects have just started and the activities, especially public utility concessions, itself are not high profit margin in its nature (see NWR's comment, p.38). Nonetheless, the financial trend seems to be positive<sup>29</sup>.

All in all, the 1997 crisis was the severest that the Thai contractors had ever experienced. The severity of the crisis exposes to the Thai contractors the danger of over-relying on just one market. And since, according to the theory, the nature of horizontal diversification enables users to move flexibly into various markets, including contra-cyclical market, therefore, it is understandable why this form of diversification is considered by various companies studied as a respected strategy to deal with business cycle.

<sup>29</sup> For example, profit margin and ROCE of NWR increased 21.32% and 15.16% respectively between 2000 and 2004 (see figure 4.5)

#### 4.3.1.3 Geographical diversification strategy

Although geographical diversification had been neglected during the Thai construction boom, even after the peak of recession there were only three companies<sup>30</sup> which have diversified geographically. It is interesting to note that every company agrees that geographical diversification, especially based on construction service, is more likely to be the most superior strategy to counter against a deepening recession (see table 4.4).

Since the recession, the amount of domestic construction projects reduced dramatically and growing slightly during post recession, all the while the economy of other regions in the world may be enjoying healthy growth. Thus, it is not hard to conceive that overseas projects could play an important part in the proportion of company workload. The empirical findings show that there is an increase in the proportion of projects undertaken between domestic and foreign market, as illustrated in Table 4.7.

Company	Percentage of overseas project in starting year	Percentage of overseas project in 2004
ITD	< 1% (1997)	> 17%
NWR	0% (1999)	33%
PLE	0% (2002)	24%

Table 4.7: The proportion of overseas project in total construction project undertaken  
(source: companies' report)

It can be perceived that within or less than 6 years, the proportion between overseas and domestic projects increase steadily, especially for NWR and PLE. An increase in overseas projects proportion, in turn, indicates that geographic diversification strategy i.e. foreign market can compensate a declining or a slow domestic market. This is confirmed by the theory which states that when one market decline, it can be compensated by another growing market (Hillebrandt and Cannon 1989, p.34).

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<sup>30</sup> ITD, NWR and PLE



From the interview, there are two main regions which are emphasised: 1) Neighbouring countries<sup>31</sup> (SEA), and 2) Middle Eastern countries. Economic growth of the former is due to China's development, whereas oil and trading are the latter's economic strength. For SEA nations, because of their economic instability, the safest projects are those funded by ADB, World Bank, JBIC<sup>32</sup> or Thai government. The success in these markets is due to the fact that Thai contractors possess ownership advantage, i.e. 1) country-specific advantage – e.g. cheaper cost of both skill and un-skill workers, compared with Japanese or European contractor, and 2) firm-specific advantage – e.g. possessing higher technological equipment than local contractors, which is the vital complement for international contractor (Hillebrandt and Cannon 1989, pp. 45–49). However, some, especially those contractors willing to become international contractors, have commented that there is insufficient support from the government which is defined as the essence of country-specific advantages.

Another prominent point supporting geographical diversification raised by ITD is that the firm will receive hard currency such as USD<sup>33</sup> from overseas clients<sup>34</sup>. Since compared with other advanced nations<sup>35</sup>, the Thai economy is rather unstable and the Thai Baht is vulnerable. Thus, hard currency received could protect the financial status of the company, especially during a recession caused by financial crisis such as that in 1997. As the lesson learnt from devaluation of the Baht in 1997, ITD, who suffered the most from borrowing great amount of foreign money, stresses:

*...in 1997 the company had to pay debt two time of the initiative value<sup>36</sup>. Domestic projects could not generate sufficient value of money to serve the foreign debt. By geographical diversification, focusing on projects supported by hard currency, ITD could survive from the financial problem...*

(Dr. Nattawut Viriya, Vice president of ITD)

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<sup>31</sup> Laos, Vietnam, Cambodia and Myanmar

<sup>32</sup> JBIC is an abbreviation of Japan Bank For International Cooperation.

<sup>33</sup> US Dollar

<sup>34</sup> ADB and World Bank pay in USD

<sup>35</sup> For example: European union, the UK, the USA and Japan

<sup>36</sup> The currency had shifted from 1 USD: 25 Baht to 1 USD: 40 Baht in 1997 – see the effect of devaluation of Thai Baht more in the introduction section.

In general, geographical diversification usually means expansion an activity into new location. However, the study has found another interesting kind of geographical diversification. In the case of Ritta, albeit they have operated only in Thailand, the majority of their clients are foreign investors from the USA and Europe such as Tesco. Since foreign client are reliant upon a different economic cycle, they are not as deeply affected by the Thai economic cycle as Thai domestic clients. Hence, they have no problem keeping their contract and making financial payment unlike most of Thai clients, as Ritta director confirms, during the same period faced financial constraint and were unable to pay. The financial performance<sup>37</sup> also shows this strength of strategy (see table 4.1) and moreover the fact that Ritta's ranking improve from 13<sup>th</sup> to 4<sup>th</sup> in 2004 (see Appendix B) thus confirms the loss from domestic clients can be compensated by foreign client. This could be perceived as another way to diversify geographically by type of client instead of location, as shown in the figure 4.7 below.

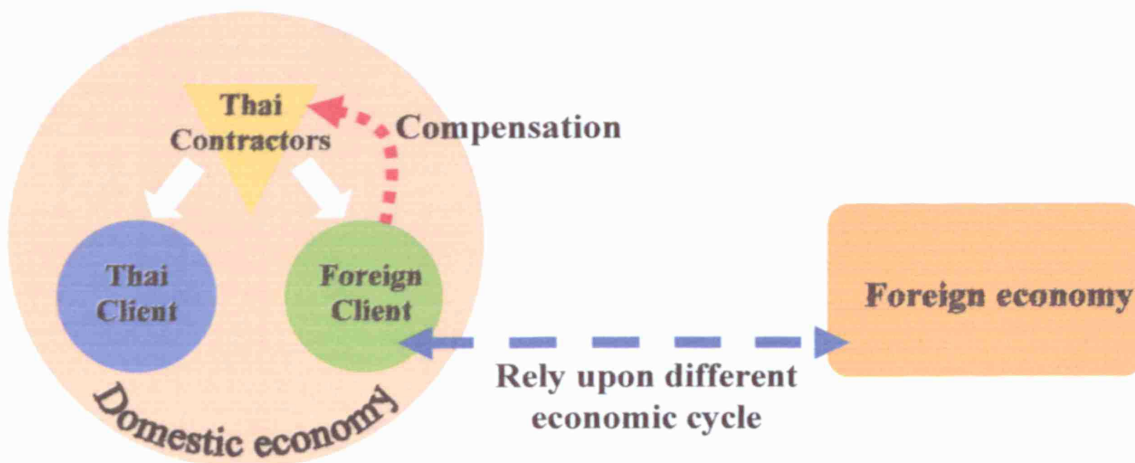


Figure 4.7: Compensation by foreign client

<sup>37</sup> Sales growth rate and net profit growth rate

All in all, although the sample denotes that all are willing to undertake a project aboard, currently, only three contractors are actively involved in such activities. The main barrier is financial constraint since they have just passed a deep financial crisis and cost of foreign project is one or two time compared with domestic one (Hillebrandt and Cannon, 1989). In addition, the complexity and uncertainty stated by Langford and Male (2001) are the difficulties which the firms face and which causes the time lag in going aboard.

#### 4.4 Time lag in diversification of response to the crisis

From the study, in the event of a recession, I found that all firms studied are eager to adopt diversification as soon as possible. However, since there is a natural time lag between the conception until operation, therefore, for diversification, the issue of timing is crucial. The findings demonstrate the time lag in diversification amongst Thai construction firms are as illustrated in figure 4.8.

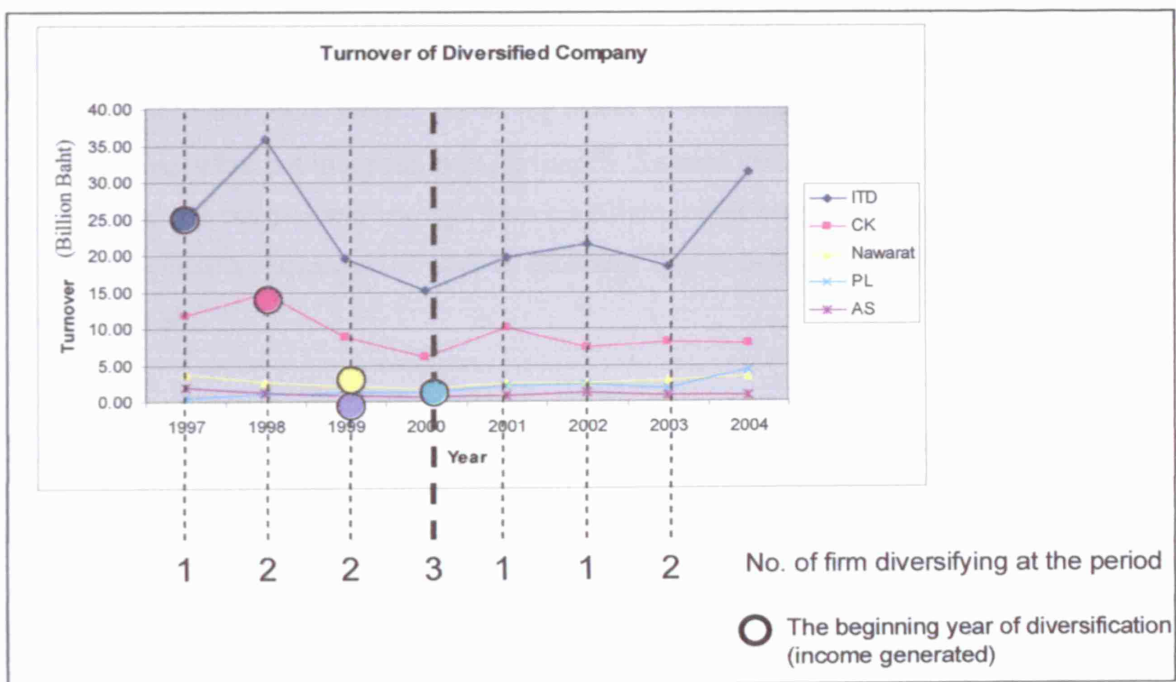


Figure 4.8: Pattern of diversification after 1997 crisis

All of the samples have diversified within 3 years after the crisis. Furthermore, it can be seen that the two biggest, ITD and CK respectively (ranking in 1998), were the most

ready to diversify, while the following companies<sup>38</sup> took approximately 2-4 years. This is due to the fact that both have high capacity to expand because they have already possessed a high number of resources and market power. The first strategy chosen by ITD to respond immediately was geographical diversification – construction service as it is the easiest way to move from the shrinking market in the country<sup>39</sup>. Hence, the expansion is also dependent upon the possessed resources and capacity of the companies. The figure 4.7 also illustrates that the firms have attempted to expand the new line of business as soon as possible after the recession as the high rate of new activities went up with in the first 3 years.

Furthermore, from the observation, none of the Thai contractors realised the likelihood of the coming recession. This means that in response to the crisis they utilised defensive posture, deferring diversification until sales growth begins to level off and drop, not aggressive posture which includes a search for more stable markets and increased utilisation of staff before the company's competitive position become weak (Ansoff 1969, pp.292 and 293). Hence, when the effect of the recession set in and market drop rapidly, they were not in a position to promptly respond and deal with unexpected change since they did not possess enough time recalibrate their corporate strategy. As a result, even though firms desperately wish to diversify due to being unprepared, they were not able to do so.

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<sup>38</sup> AS, NWR and PLE

<sup>39</sup> Note that ITD is one of the largest construction companies in South Asia and the strategy is suite for coping with the financial problem at that period which has been discussed in section 4.3.4

## **Chapter 5: Synthesis, conclusion and recommendation.**

### **5.1 Synthesis: Diversification as strategy against business cycle in Thai construction industry**

According to the findings and analysis above, by investigating both qualitative and quantitative data during the recession, the results indicate diversified companies are more outstanding than non-diversified ones, and thus confirm the theoretical assumption that diversification is an effective strategy against business cycle. The reason is diversification strategy provides room or way for firms to manoeuvre, grow and survive.

The results of the second hypothesis further suggest that Thai contractors in period of crisis ought to diversify related to their core business since higher RR reflects higher performance. By expanding around core competence, activities can be combined and firms will receive and benefit from synergy and flexible use of existing resources. These two keys encourage the leverage of companies in the adverse condition. Additionally, problem of managing unfamiliar business which may become unmanageable during the crisis is less likely to occur when related diversification is utilised.

The 1997 crisis had significantly affected Thai construction firms. One prominent feature is how the crisis influenced how firms consider the forms in which they ought to diversify. Furthermore, it also made Thai contractors aware and acknowledge the risk of over-relying on only one market or activity. Consequentially, horizontal and geographical diversification became the most interesting strategy since they allow the company to move effective between the markets in order to survive. Whilst, vertical integration seems to be weak at tackling this problem. Furthermore, as the lesson learnt from 1997 crisis, “catastrophe linkage” is the most dangerous effect of vertical integration concerned.

Further investigation suggests that the direction of horizontal diversification used by Thai contractors favours stability i.e. concession related to public utility supported by the government. This direction with its certain generation of income can be perceived as low risk. In addition, some of the studied samples who seek to gain flexibility prefer to expand into low capital and low labour intensive business. Therefore, we could conclude

that Thai construction firm as a strategy to survive will seek out flexible and low risk activities.

For geographical diversification, apart from its main strong point which is to protect the coincidence of slump since nations' economies are separated. By undertaking this strategy the company will also receive hard currency income which would secure the company's future in future crisis. Since uncertainty and/or complexity are inherent nature of overseas project, by starting at the safest point which is to undertake projects funded by the government or reliable financial institutions<sup>40</sup> these risks could be minimised. Furthermore, via ownership advantages<sup>41</sup> that Thai contractors possessed, it is possible for geographical diversification to be successfully implemented. Interestingly, the findings of Ritta show that, apart from pure geographical diversification i.e. expanding into different location, it could be done in another fashion which is to diversify geographically via different clients, i.e. foreign investors. Also, the benefit of pure geographical diversification is gained from this strategy. Furthermore, this strategy does promise lower risk since the company would still be operating in the same domestic market.

Nonetheless, following to the theory and findings, although vertical integration is rather dangerous and not popular amongst samples in the research, the results illustrate that it is effective at countering the crisis. This is achieved by competitive advantage and market control which enhance the company' performance. Hence, to select the most appropriate way of diversification, firms have to consider its own characteristic and environment. Additionally, the trend of diversification forms can be summarised as in figure 5.1 below.

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<sup>40</sup> ABD, World Bank or JBIC

<sup>41</sup> Ownership advantages of Thai contractor are: 1) country-specific advantages – i.e. closed neighbouring country and low labour cost, compared with advanced national contractors, and 2) firm-specific advantages – i.e. high technology and long experience, compared with local contractors.

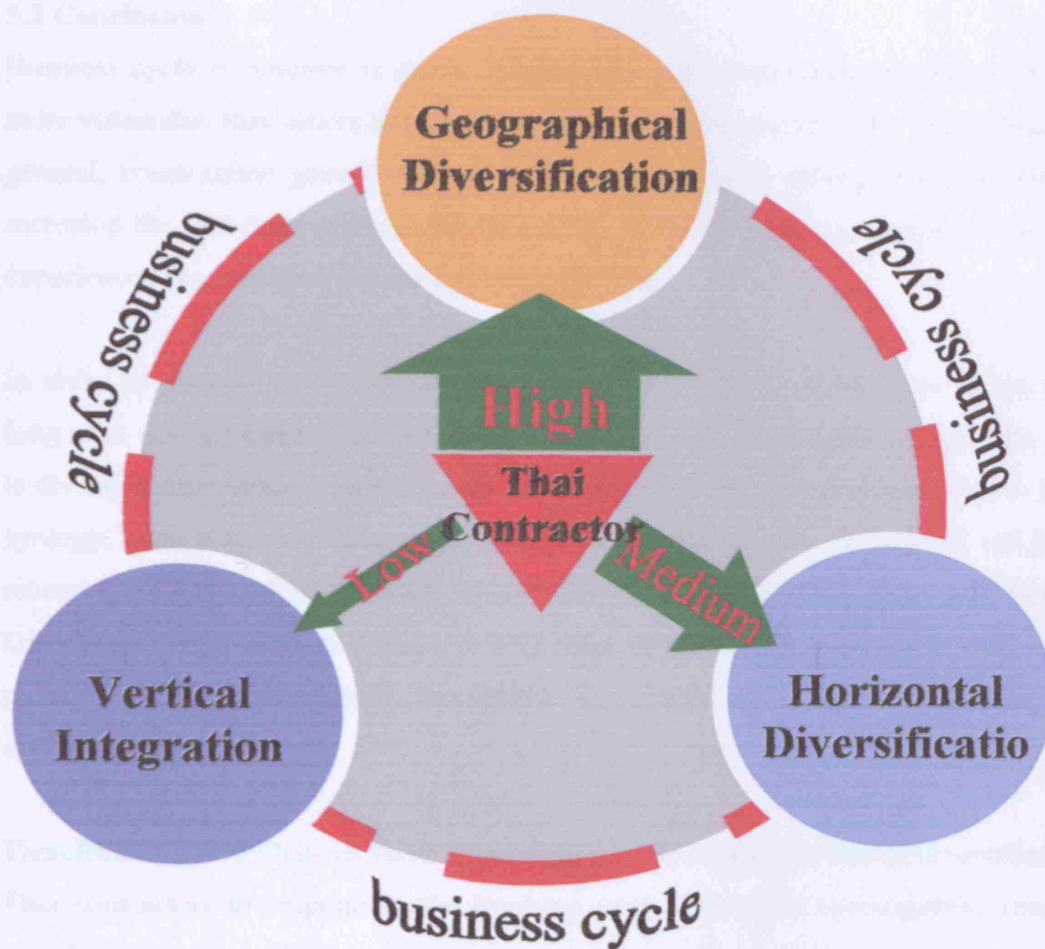


Figure 5.1: Trend of diversification

Likewise, because Thai construction firms had never prepared to respond to the recession the strategy to respond was just emerge strategy from studying this the research came up with another finding apart from the set hypotheses which is there is a time lag in diversification amongst Thai contractors (see figure 4.8). Since diversification requires timing to be activated, therefore, aggressive posture should be adopted at the earliest sign of unfavourable change in its economic environment in order to find new ways to survive before a decline in the market. Hence, firms would be able to promptly and more effectively respond to future recession.

## 5.2 Conclusion

Business cycle is inherent in every industry and the construction industry seems to be more vulnerable than others during the downturn in the business cycle. This is because, in general, construction growth rate of growth exceeds GDP during boom, whilst in the recession the rate drop even deeper than GDP. In 1997, Thai construction industry had experienced the recession caused by financial crisis.

In order to respond to the business cycle which occur approximately every ten years<sup>42</sup>, long term strategy need to be considered. And one of the long term strategies for growth is diversification strategy which could effectively deal with the problem. This is because synergy, spreading risk, balance of market and flexibility are the related validity to a recession (Hillebrandt et al., 1989, Ansoff, 1968 and Smyth, 1985). Moreover, Benes and Diepeveen (1985 cited in Ai-Lin, p.209) state that although the market will never be reduce to nil, firms would be unable to remain without flexible strategy i.e. diversification.

Therefore, the study has set three hypotheses to investigate the use of diversification of Thai contractors to respond to the business cycle. From the investigation, more than initial expectation, Thai contractors understood the content and application of diversification in relation to a crisis. Most of them perceive that diversification can be the efficient strategy to cope with dynamic environment such as the fluctuation of construction demand. Even non-diversified firms are also willing to expand into new line(s) of business. Having analysed the financial data and in-depth interview of leading Thai construction firms, the results found that the diversified construction companies tend to outperform the non-diversified companies since when compared with the latter, the average growth rate of the former shows more positive results. This is because the fact that by undertaking diversification there are more areas to grow into.

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<sup>42</sup> Note that the study concern mainly on short wave.



However, it does not mean that a high rate of diversification will translate into a higher growth rate. The direction of diversification related to the core competence also affects the company's performance. Certain studies (e.g. Ansoff (1965), Bettis (1981), Lecraw (1984), Palepu (1985), Rumelt (1987), and Singh and Montgomery (1987)) reflect that compared between related and unrelated diversification, the superiorer performance is more likely to be a related one. Similarly, the second hypothesis is in accordance with the findings of those mentioned researchers. In the findings, there are no samples which could be categorised as an archetypal unrelated diversification. However, the related ratio (RR) shows the relationship to the growth rate of turnover and net profit; a higher RR signifies better performance and *vice versa* (see table 4.3). The financial result has been supported by the interviewee who experienced the limitation of unrelated business during the 1997 crisis (see section 4.2).

As a result, at this point, it can be suggested that diversification is more likely to be adopted as a strategy for Thai contractors to deal with business cycle. Furthermore, if they want to fully exploit the prominent features of diversification, they should not diversify too faraway from their core competence. This is because the new activity(s) related to core business enables them to enhance the utilisation of existing resources – both tangible and intangible – which sometimes are underutilised during the downturn. In turn, this can also create the flexibility which is an asset. Moreover, by sharing resources between the different activities synergy is another advantage which the firms will gain which would not be gained by unrelated diversification.

By investigating the relationship between Thai contractors and three forms of diversification<sup>43</sup>, the findings in this research shows clearly that Thai contractors prefer horizontal and geographical diversification more than vertical integration. As mentioned by Smyth (1985) in order to reduce the risk on any one market, it is necessary to possess a number of markets. Because horizontal and geographical diversification allows the company to flexibly move between different markets, whereas vertical integration does not. It can be seen that flexibility which is the crucial key to successfully tackling against

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<sup>43</sup> Forms of diversification are consist of vertical integration, horizontal diversification and geographical diversification.

the uncertainty during depression (Lansley, et al., 1979 and Walker, 1996 cited in Ai-Lin, p.210) belong to horizontal and geographical diversification.

In more detail, Thai contractors consider public utility concession (horizontal diversification) and undertaking overseas construction projects (geographical diversification) as the most popular strategy under the recession. This is because the former relies on stable market, while the latter operates in different nation's economy. Both strategies can create opportunity for firms to become involved in contra-cyclical market. This illustrates the right view of Thai contractors to direction of diversification against the business cycle. In addition, geographical diversification seems to be better off at dealing with a deepening crisis as in 1997 where Thailand experienced whole sale domestic meltdown because a firm's activities would be situated in a contra-cyclical economy. Obviously, catastrophe linkage, the most terrifying prospect of diversifying vertically, is the main concern of Thai contractors. This is the reason why the majority of Thai contractors are not willing to utilise it. However, the findings show that positive result could come from this strategy.

In summary, for the Thai construction industry diversification strategy is more likely to be considered as a strategy to respond to and prepare for a recession. Because it provides the necessary keys to survive and grow as discussed above. However, Hillebrandt and Cannon (1989, p.31) argue that diversification involves risk and uncertainty. Hence, it is important for firms to determine which form of diversification is appropriate and suitable for its characteristics, constraints, competence, markets and environment. This is in order for firms to exploit fully the validity of diversification in dealing with business cycle, because each type and form of diversification has its own strengths and weaknesses.

## **5.3 Recommendations**

### **5.3.1 Recommendations for company**

In order to combat against the business cycle, it is important for Thai construction firms to adopt diversification as a strategy. Moreover, Thai contractors should not expand into new businesses beyond its core competence during a recession. Likewise, strengths and weaknesses of a company should be identified in order to undertake the appropriate forms or directions to achieve sustainable grow and survival. However, from my point of view, horizontal and geographical diversification is more likely to be appropriate in the case of a deepening recession as 1997 crisis.

Furthermore, for a firm which is seeks to spread risk to contra-cyclical economy by using geographical diversification, but it doesn't possess the necessary capability to do so, they should look to the case of Ritta which mainly on serving foreign investor in Thailand, as another alternative strategy to gain similar benefit as expanding to overseas markets, but at lower risk and investment cost. However, those who want to undertake this strategy should improve the construction standard since the projects funded by foreign investors in Thailand often require higher standard than the general Thai client's projects.

Moreover, since diversification also relies on timing, from the beginning point until it has been activated, Thai construction firms should seek out the opportunity to expand into new activities and markets by utilising aggressive posture introduced by Ansoff (1969) in order to respond future recession.

### **5.3.2 Recommendations for government**

According to the interview, the majority of Thai contractors require more support from the Thai government. Especially, regarding to the study, geographical diversification would become the most interesting direction in the future. From the experience of contractors who have already undertaken overseas projects, they comment on the lack of government support; particularly through aid subsidising losses incurred from overseas construction project, which in other advanced nations is considered as normal.

Furthermore, responsible authority should follow up on recent developments and up-to-date information and situation in order to warn the Thai construction industry of any impending changes in the economic market such as demand fluctuation or recession. Likewise, the government in association with educational institutions should also provide knowledge to the management of the company and know-how to improve the overall performance of the industry.

### **5.3.3 Recommendations for further research**

According to the barrier in finding information about the samples studied, particularly financial data, future researchers ought to collect more data samples in order to gain a more accurate image. Moreover, I am convinced that in the future due to the increased numbers of firms who have diversified, the study along this line would be more interesting and should be more telling in its findings. In addition, since the research studies about the business cycle, it would be worthwhile that the time frame of the research should be further lengthen preferably to include the next recession in order to identify and confirm the most appropriate diversification strategy. Finally, as the study demonstrates that geographical diversification will become the direction in which Thai contractors are interested in and which they are willing to undertake in the future, therefore, further research emphasising upon this kind of diversification should be conducted in order to analysis strengths and weaknesses to identify the competitive advantage for Thai contractors to compete against other international contractors.

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## Appendices

### Appendix A: Firm's activities and starting year of Activities

#### ITD

Activity	Starting Year	Share in Total Turnover
Construction (Domestic market)	1958	21,261,145,200.00
Construction (Overseas market)	1997	5,315,286,300.00
Development and Investment	Before 1997	156,331,950.00
Manufacture and Sales of Construction Materials	Before 1997 and 2003	2,188,647,300.00
Coal Mining (Domestic market)	2000	2,282,446,470.00
Coal Mining (Overseas market)	1998	
Plant Hire	Before 1997	31,266,390.00
Education	Before 1997	31,266,390.00
<b>Total Turnover</b>		<b>31,266,390,000.00</b>

#### CK

Activity	Starting Year	Share in Total Turnover
Construction	1972	5,751,862,328.94
Public Water Supply I	1998	660,686,889.14
Public Water Supply II	2003	777,278,693.10
Bangkok Metro Subway Service	2003	466,367,215.86
Manufacture and Sales of Construction Materials	Before 1997	116,591,803.97
<b>Total Turnover</b>		<b>7,772,786,931.00</b>

#### NWR

Activity	Starting Year	Share in Total Turnover
Construction		2,973,528,812.70
Waste Water Treatment Service	2000	99,117,627.09
Manufacture and Sales of Construction Materials		231,274,463.21
<b>Total Turnover</b>		<b>3,303,920,903.00</b>

#### AS

Activity	Starting Year	Share in Total Turnover
Construction	1964	688,648,294.83
Information Technology Service	1999	97,220,935.74
Treading	2000	12,152,616.97
Coal Mining	2001	12,152,616.97
<b>Total Turnover</b>		<b>810,174,464.50</b>

#### PL

Activity	Starting Year	Share in Total Turnover
Electrical and Mechanical Installation	1988	0.00
Construction	2000	0.00
Sale of electrical and communication equipment	2000	0.00
<b>Total Turnover</b>		<b>4,228,442,770.00</b>



## Appendix B: Ranking of Thai Contractors

Company	Rank	
	2004	1997
Italian-Thai Development	1	1
Sino-Thai Engineering and Construction	2	4
CH.Karnchang	3	2
Ritta	4	13
Syntec Construction	5	3
Nawarat Patanakarn	6	5
Power Line Engineering	7	26
Krungton Engineering	8	6
Thaiwivat Karntarn	9	7
See Sang Karn Yotah	10	17
Seafco	11	22
Benjamas	12	16
NL Development	13	21
Siphya Construction	14	14
AS Associated Engineering (1964)	15	8
Tanormwong Construction	16	10
Rojisri Construction	17	32
Rumnakorn Construction	18	12
MC. Construction	19	19
Kamphaeng Phet Wiwat	20	11

Source: Thai Contractor Association (2004)

# Appendix C: Financial Data

CK (PCL)	1997	1998	1999	2000	2001	2002	2003
Sales	11,610,884,515.00	14,699,461,979.00	8,763,886,193.00	6,046,174,188.00	10,006,877,433.00	7,359,932,247.00	8,068,440,203.00
Profit	1,539,578,236.00	1,616,420,441.00	-1,836,923,277.00	140,956,056.00	3,143,489,614.00	376,542,470.00	995,256,658.00
Net Profit	-364,158,093.00	207,907,690.00	-2,894,641,678.00	-442,723,558.00	2,618,643,813.00	-178,910,257.00	285,387,340.00
Total assets	16,961,382,875.00	18,502,687,770.00	12,898,107,285.00	11,617,937,488.00	14,849,202,040.00	14,737,164,005.00	15,325,065,952.00
Current liabilities	10,112,054,294.00	12,330,092,815.00	10,446,854,928.00	9,440,126,130.00	11,080,551,776.00	11,196,486,509.00	9,950,152,889.00
Profit Margin	13.26	11.00	-20.96	2.33	31.41	5.12	12.34
ROCE	22.48	26.19	-74.94	6.47	83.41	10.63	18.52
Growth rate of Turnover	31.45	26.60	-40.38	-31.01	65.51	-26.45	9.63

Nawarat (PCL)	1997	1998	1999	2000	2001	2002	2003
Sales	3,612,758,587.32	2,475,048,591.98	2,085,067,812.25	1,697,011,110.00	2,294,521,285.00	2,359,817,597.00	2,683,739,412.00
Profit	352,157,589.74	-529,430,131.22	-486,027,035.29	-383,794,199.00	-562,396,846.00	-628,365,593.00	-288,035,216.00
Net Profit	-462,168,666.97	-951,379,946.45	-863,945,506.38	351,614,157.00	-595,333,001.00	-652,548,060.00	-315,463,160.00
Total assets	5,916,605,757.76	4,923,624,833.07	4,217,636,592.41	4,135,483,354.00	3,550,084,604.00	2,764,461,986.00	2,656,599,066.00
Current liabilities	2,762,869,196.68	4,530,399,280.50	4,685,147,922.10	1,577,028,319.00	1,348,422,778.00	1,339,381,405.00	1,608,483,621.00
Profit Margin	9.75	-21.27	-23.31	-22.62	-24.51	-26.63	-10.73
ROCE	11.17	-133.87	103.96	-15.00	-25.54	-44.09	-27.48
Growth rate of Turnover	30.01	-31.49	-15.76	-18.61	35.21	2.85	13.73

NL (PCL) (S)	1997	1998	1999	2000	2001	2002	2003
Sales	471,874,455.40	373,099,860.99	227,667,213.75	339,103,286.25	430,347,850.82	270,588,356.17	688,918,506.82
Profit	19,787,403.81	13,840,813.96	2,489,337.95	32,737,917.36	17,662,793.31	9,318,903.89	74,982,135.58
Net Profit	12,531,890.65	8,599,258.91	147,379.58	22,255,297.96	9,867,591.37	5,495,737.22	54,045,721.81
Total assets	197,494,166.65	153,203,094.56	190,080,962.38	284,512,445.06	313,240,124.11	178,502,187.68	297,162,400.24
Current liabilities	91,806,906.29	38,916,575.29	75,647,063.53	67,823,248.25	106,683,335.93	73,313,862.28	88,702,019.80
Profit Margin	4.19	3.71	1.09	9.65	4.10	3.44	10.88
ROCE	18.72	12.11	2.18	15.11	8.55	8.86	35.97
Growth rate of Turnover		-20.93	-38.98	48.95	26.91	-37.12	154.60

Powerline (PCL)	1997	1998	1999	2000	2001	2002	2003
Sales	418,436,569.53	948,968,327.02	1,170,840,000.00	1,063,621,000.00	2,000,331,803.00	2,113,258,997.00	1,549,121,240.00
Profit	32,067,904.22	50,128,256.66	119,514,000.00	57,122,000.00	59,674,056.00	364,431,091.00	166,042,022.00
Net Profit	20,557,855.02	14,788,066.65	69,975,000.00	32,182,000.00	12,119,000.00	218,834,000.00	123,529,022.00
Total assets	381,276,867.82	438,193,221.77	780,005,000.00	945,383,000.00	1,120,060,161.00	1,220,767,796.00	1,633,164,392.00
Current liabilities	167,625,912.72	302,255,200.96	524,727,000.00	569,077,000.00	812,552,079.00	452,222,659.00	788,444,363.00
Profit Margin	7.66	5.28	10.21	5.37	2.98	17.24	10.72
ROCE	15.01	36.88	46.82	15.18	19.41	47.42	19.66
Growth rate of Turnover	4.51	126.79	23.38	-9.16	88.07	5.65	-26.70

Ritta (S)	1997	1998	1999	2000	2001	2002	2003
Sales	958,307,615.91	1,072,790,464.18	1,192,534,789.52	1,538,813,631.99	2,838,902,983.29	2,547,650,705.44	4,367,597,735.91
Profit	88,697,191.94	96,217,554.66	124,268,771.96	162,302,965.00	257,939,441.02	251,192,925.39	311,999,820.45
Net Profit	45,994,529.83	64,704,238.28	86,253,134.58	113,746,848.79	180,268,002.66	175,531,133.62	191,840,108.68
Total assets	314,760,696.53	364,202,393.24	613,996,851.68	937,848,883.91	1,208,928,033.93	1,508,262,919.98	2,492,424,678.42
Current liabilities	84,975,682.01	74,542,581.14	240,478,574.61	445,317,618.37	517,274,696.23	530,280,051.64	920,384,369.97
Profit Margin	9.26	8.97	10.42	10.55	9.09	9.86	7.14
ROCE	38.60	33.27	33.27	32.95	37.29	25.68	19.85
Growth rate of Turnover	43.31	11.95	11.16	29.04	84.49	-10.26	71.44

KPV (S)	1997	1998	1999	2000	2001	2002	2003
Sales	1,267,350,582.91	576,914,360.16	984,751,307.82	743,127,219.06	256,401,816.72	373,987,596.59	324,798,228.59
Profit	73,901,990.26	68,240,864.84	28,484,622.76	24,529,682.98	13,818,439.77	9,234,109.65	-110,393,304.76
Net Profit	9,449,786.45	8,518,138.76	259,787.60	14,771,005.31	3,681,957.48	-5,431,387.56	-116,587,605.85
Total assets	1,631,177,284.06	1,601,884,802.55	1,514,374,172.57	1,094,422,789.42	1,014,607,929.25	899,625,952.89	837,934,675.74
Current liabilities	867,018,879.95	970,766,812.93	816,549,329.91	428,556,106.89	277,418,952.78	173,301,176.32	168,281,336.05
Profit Margin	5.83	11.83	2.89	3.30	5.39	2.47	-33.99
ROCE	9.67	10.81	4.08	3.68	1.87	1.27	-16.49
Growth rate of Turnover	-33.78	-54.48	70.69	-24.54	-65.50	45.86	-13.15

MC (S)	1997	1998	1999	2000	2001	2002	2003
Sales	439,189,441.63	445,713,447.24	366,662,775.77	444,556,360.73	589,046,043.85	381,992,281.19	83,444,574.28
Profit	17,823,578.66	25,715,567.97	13,626,212.13	1,477,012.93	12,061,783.57	10,965,017.61	-64,294,552.54
Net Profit	2,206,088.29	7,045,565.14	7,053,930.32	-3,781,510.83	5,985,021.22	6,147,691.33	-64,296,686.68
Total assets	403,209,039.46	300,239,810.42	451,077,410.65	453,852,392.14	427,472,578.61	411,207,688.77	332,647,925.82
Current liabilities	210,699,041.84	100,895,063.66	219,678,733.57	176,235,225.89	143,867,391.14	47,742,973.03	33,854,529.55
Profit Margin	4.06	5.77	3.72	0.33	2.05	2.87	-77.05
ROCE	9.26	12.90	5.89	0.53	4.25	3.02	-21.52
Growth rate of Turnover	-24.78	1.49	-17.74	21.24	32.50	-35.15	-78.16

A.S. (S)	1997	1998	1999	2000	2001	2002	2003
Sales	1,859,509,985.09	1,159,550,994.00	687,866,777.43	540,440,513.65	783,219,686.86	1,138,539,112.81	773,032,253.13
Profit	88,845,065.47	76,014,156.77	31,013,387.80	22,397,427.09	20,078,243.51	176,189,063.27	42,479,525.62
Net Profit	20,411,418.21	10,605,216.12	7,192,120.48	7,622,606.63	12,119,230.96	136,232,279.41	3,976,538.94
Total assets	1,295,020,034.97	798,367,871.94	528,492,936.74	774,898,353.88	1,143,091,076.90	1,533,770,271.09	1,439,154,360.51
Current liabilities	1,000,924,267.33	500,533,994.30	284,149,463.70	332,339,385.09	568,501,640.92	776,087,150.90	92,814,637.07
Profit Margin	4.78	6.56	4.51	4.14	2.56	15.48	5.50
ROCE	30.21	25.52	12.69	5.06	3.49	23.25	3.16
Growth rate of Turnover	160.13	-37.64	-40.68	-21.43	44.92	45.37	-32.10

Italian-Thai (PCL)	1997	1998	1999	2000	2001	2002	2003
Sales	24,954,830,000.00	35,762,820,000.00	19,430,760,000.00	15,166,800,000.00	19,636,480,000.00	21,421,660,000.00	18,342,740,000.00
Profit	1,358,930,000.00	4,845,570,000.00	-50,920,000.00	-2,843,440,000.00	-1,129,130,000.00	1,246,000,000.00	1,464,940,000.00
Net Profit	-191,970,000.00	2,380,600,000.00	-1,437,120,000.00	-3,966,780,000.00	-2,527,990,000.00	6,336,340,000.00	920,620,000.00
Total assets	34,614,930,000.00	32,132,200,000.00	28,598,460,000.00	23,115,730,000.00	22,426,500,000.00	24,131,400,000.00	25,350,380,000.00
Current liabilities	16,642,930,000.00	16,982,800,000.00	10,243,420,000.00	11,874,780,000.00	15,070,280,000.00	8,877,840,000.00	9,765,700,000.00
Profit Margin	5.45	13.55	-0.26	-18.75	-5.75	5.82	7.99
ROCE	7.56	31.99	-0.28	-25.30	-15.35	8.17	9.40
Growth rate of Turnover	32.71	43.31	-45.67	-21.94	29.47	9.09	-14.37

## Appendix D: Standard Industrial Classification, 1992

### Summary of SIC92 definition of construction and related activities

Industry name	SIC92 definition and classification
<b>List A</b>	<b>Activities</b>
Section F Construction	45.1 Site preparation 45.11 Demolition and wrecking of buildings; earth moving 45.12 Test drilling and boring 45.2 Building of complete constructions or parts thereof: civil engineering 45.21 General construction of buildings and civil engineering works 45.22 Erection of roof covering and frames 45.23 Construction of highways, roads, airfields and sport facilities 45.24 Construction of water projects 45.25 Other construction work involving and fittings 45.3 Building installation 45.31 Installation of electrical wiring and fittings 45.32 Insulation work activities 45.33 Plumbing 45.34 Other building installation 45.4 Building completion 45.41 Plastering 45.42 Joinery installation 45.43 Floor and wall covering 45.44 Painting and glazing 45.45 Other building completion 45.5 Renting of construction or demolition equipment with operator 45.50 Renting of construction or demolition equipment with operator
<b>List B</b>	<b>Activities</b>
Section C Mining and quarrying subsection CB Mining and quarrying except energy producing material	14.11 Quarrying of stone for construction 14.12 Quarrying of lime stone, gypsum and chalk 14.13 Quarrying of state 14.21 Operation of gravel and sand pits 14.22 Mining of clays and kaolin
Section D Manufacturing Subsection DB Manufacture of textile and textile products	20.30 Manufacture of builders' carpentry and joinery
Section D	25 Manufacture of rubber and plastic products

<p><b>Manufacturing</b>  <b>Subsection DH</b>  <b>Manufacture of</b>  <b>Rubber and plastic</b>  <b>products</b></p>	<p><b>25.23/2 Manufacture of other builders' ware of plastic</b></p>
<p><b>Section D</b>  <b>Manufacturing</b>  <b>Subsection DI</b>  <b>Manufacture of</b>  <b>other non-metallic</b>  <b>mineral products</b></p>	<p>26.11 Manufacture of flat glass  26.12 Shaping and processing of flat glass  26.22 Manufacture of ceramic sanitary fixtures  26.30 Manufacture of tiles and flags  26.40 Manufacture of bricks, tiles and construction products, baked in clay  26.51 Manufacture of cement  26.52 Manufacture of lime  26.53 Manufacture of plaster  26.61 Manufacture of concrete products for construction purposes  26.62 Manufacture of plaster products for construction purposes  26.63 Manufacture of ready-mixed concrete  26.64 Manufacture of mortars  26.65 Manufacture of fibre cement  26.70 Cutting, shaping and finishing in stone</p>
<p><b>Section D</b>  <b>Manufacturing</b></p>	<p>28.11 Manufacture of metal structures and parts of structure  28.12 Manufacture of builders' carpentry and joinery of metal</p>
<p><b>Subjection DJ</b>  <b>Manufacture of basic</b>  <b>metal products</b></p>	<p>28.22 Manufacture of central heating radiators and boilers  28.63 Manufacture of locks and hinges metals and fabricated</p>
<p><b>Section D</b>  <b>Manufacturing</b>  <b>Subjection DK</b>  <b>Manufacture of</b>  <b>equipment not</b>  <b>elsewhere classified</b></p>	<p>29.23 Manufacture of non-domestic cooling and ventilation equipment  29.52 Manufacture of machinery for mining, quarrying and construction machinery and  29.52/2 Manufacture of earth moving equipment  29.52/3 Manufacture of equipment for concrete crushing and screening and roadworks.</p>
<p><b>Section D</b>  <b>Manufacturing</b>  <b>Subsection DL</b></p>	<p>31.30 Manufacture of insulated wire and cable  31.50 Manufacture of lighting equipment and electric lamps.</p>
<p><b>Section G</b>  <b>Wholesale and retail</b>  <b>trade</b></p>	<p>51.53 Wholesale of wood, construction materials and sanitary equipment  51.54 Wholesale of hardware, plumbing and heating equipment and supplies.</p>



## **Appendix E: Interview Questions**

**Q1: In what way has the company grown, the most, after the recession (1997-2004)?**

- Why and how do you think the mentioned strategies (businesses) effects to the rate of growth?

**Q2: Were the mentioned strategies that increases growth rate planned or it is a result of just reaction to the event (emerge strategy)?**

- Why did you utilise these strategies?
- What factors influence the company to utilise these strategies?

**Q3: Of the various strategies, which is the most significant or successful strategy ?**

- Why did it work? Company strength / Resources / Knowledge / Market / Government support / etc.
- Why has the company decided to utilise those strategies? What reasons?
- Did it succeed following the goal?

**Q4: What activities were ineffective on responding to the economic downturn?**

- Why it did not work?
- What was the anticipated target?
- Why has the company decided to utilise those strategies? What reasons?

**Q5: What plan have you got for the future?**

- Why do you think, what reason, make the plan appropriate for future situation?
- What factor constrains the company to pursue planned goals?

**Q6: If there was another recession, based on the latest crisis, how would you respond in order to survive the crisis?**

**Q7: How do the company's activities / businesses / structures / strategy differ from before the crisis?**

**Q8: What is the most significant lesson learnt from 1997 crisis that effects to the strategic plan of the company?**



## **Appendix F: Interview Data**

### **A.S. Associated Engineering (1964)**

#### **Type of business**

- **Construction contractor (1964)**  
Mainly in Public sector (90%) e.g. Road construction, Telecommunication, etc.
- **Mining**  
In power industry, the company can share its resources
- **Trading**  
At first the aim of this activity is to trade construction materials. However, at the moment this activity has been shifted to support mining section in power industry.
- **IT industry**  
Relate and support to Telecommunication construction

**No. of employees:** 900

#### **Interviewee(s) information:**

**Name:** Mr. Aungsurus Areekul

**Position:** Managing Director

**Name:** Mr. Chatchawann Chakreyavanich

**Position:** General Manager

#### **Interview:**

**Q:** What significant lessons were learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. Instability of the foreign exchange rate is important to the construction industry since it could cause financial ruin.
2. Organisational Inflexibility creates inefficiency, constraining the amount of options that an organisation could choose to tackle the crisis.
3. Public sector clients are more reliable than private sector clients since they are not susceptible to the problems that plague private sector clients.
4. The company should not diversify in to a new line of business which it is not competent in or lack experience of.

**Q:** In what way(s) has the company grown, the most, after the recession (1997-2004)? Why and how do you think the mentioned strategies (businesses) effects your rate of growth?

**Ans:** AS survived the crisis because

1. The company did not borrow foreign capital, which made it in one way immuned against the effect of the Baht flotation.
2. Its client is the public sector and since it was not faced with a financial problem, AS was not affected.
3. Focus on core competency – Infrastructure construction projects have remained AS's core businesses and other unprofitable activities were dropped. With improved situation, the company have attempted to diversify in to other businesses with different strategies. In hindsight, the company learnt that fixed assets creation was not a good idea when faced with an impending recession. Therefore, at the moment the company is not trying to create fixed assets such as permanent machinery or staff. Only when new activities are performing greatly, would the company consider investing in fixed assets. This is to ensure themselves that they can back off conveniently and save themselves.
4. Related diversification – AS believe that although diversification is an effective strategy in the modern business, they also believe that the company itself should not

diversify to unrelated fields of activities. AS believe that related diversification would be more beneficial, especially during an economic down turn since these are the activities that the company is already more or less involved in and are keen on. Therefore, after the crisis AS have ventured into 3 new activities, consisting of mining, trading and IT, of which, all are related activity to the company's core business. As a result, resources of the company such as workers and machinery can be utilised more fully and effectively. The decision to move into IT activity is interesting. But AS defends its decision arguing that the IT is a crucial business in the future.

5. AS is now screening its projects more carefully, only those that have a high probability of success would be considered.
6. Restructuring – down size.

**Q: Were the mentioned strategies that increases growth rate planned or it is a reaction to the Crisis (emerge strategy)? Why did you utilise these strategies?**

- Why did you utilise these strategies?

**Ans:** The mentioned strategies are emerge strategy. They had never thought and planned for the crisis because it happened very fast.

**Q: What activities were ineffective on responding to the economic downturn? Why has the company decided to utilise those strategies?**

**Ans:**

1. Creating fixed costs
2. Diversifying to the new line out of core competency
3. Inflexibility of the organisation

**Q: What plan have you got for the future?**

- Why do you think, what reason, make the plan appropriate for future situation?
- What factor constrains the company to pursue planned goals?

**Ans:**

1. Geographical diversification – AS. Is currently studying the feasibility of foreign regions. The company is particularly interested in Middle East because of its high income and rapid development. Another area that the company is interested in is Thailand's neighbouring countries. However, this region is more unstable; therefore, the projects that company will undertake have to be funded by ADB or World Bank.
2. Development – AS. is waiting for an opportunity to become a developer because it is directly related to its core business. However, because of its high risk, they need more time to plan in order to insure against failure.
3. Not supplier – AS. Thinks that it is difficult to become supplier because the market of basic materials is highly competitive and also capital intensive.

## **CH. Karnchang**

### **Type of business:**

- **Construction contractor** (1972)  
Mainly in Public sector (90%) – Infrastructure
- **Concession**  
Consisting of:
  1. Bangkok Metro Subway (2004) – 4.51% of Total revenue
  2. Public Water Supply I (1998)
  3. Public Water Supply II (2004)
- **Construction Material** (before crisis)
  1. Concrete pile manufacturing
  2. Steel manufacturing
  3. Milling Stone manufacturing

**Number of employees:** 2,600

### **Interviewee information:**

**Name:** Mr Vachira Jitachotpan

**Position:** Director of strategic management division

### **Interview:**

**Q:** What significant lesson(s) were learnt from the 1997 crisis and how it affected the company's strategic planning?

**Ans:**

1. An unstable exchange rate could cause a firm's collapse. In CK's own experience, the company had borrowed from foreign financial institution since those institutions had lower interest rate. As a consequence, this severely impacted the company. For the future, since it is impossible not to borrow foreign capital, the company would therefore aim to make mainly short-term loans, as for long-term loans, depending on the situation the type of currency should be swapped accordingly.
2. Importing materials and machinery was another lesson. Hence, now every aspect related to foreign currency will be considered as possible risk.
3. Private sector could create NPL, while the Public sector is always financially sound.
4. Every business has its own cycle. With the number of projects declining rapidly during 1997 to 2000, therefore, as a company there should be other businesses to support the core business during the industry's downturn.

**Q:** In what way has the company grown, the most, after the recession (1997-2004)?

**Ans:** CK survived the crisis because

1. Although CK had borrowed internationally, due to up to date financial information, we were able to swap a certain amount of money before the situation deteriorate further.
2. CK's main client is the public sector. Therefore there was no financial problem despite the significantly reduced private sector projects.
3. During the construction boom, the company had diversified to the downstream of the supply chain in order to minimise market failure and supplier's bargaining power. Moreover, this activity further enabled the company to better manage its projects. In effect, the material produced during recession could be used to support the company's own construction projects and also sold on to other contractors for profits.
4. Unrelated diversification – CK has diversified horizontally its activities. In order to ensure long-term survival, the company felt that public utility concession is most appropriate. Since it could generate stable and long-term revenue even when faced with an economic downturn. Thus CK had chosen to focus on subway and water

supply concession. Although these moves are somewhat risky and also involving high investment, the company believe that despite a risky initial state, once everything is settled down the company would be compensated with a healthy and continuous benefit. And in order to combat the obstacles of diversifying in to a new line of business in term of resources and know-how, since each project has its own unique characteristics, CK employs experts to transfer the know-how to their own staff and out source the project to experienced consultant. This is because each project has its own unique characteristic.

5. More careful project selection, in response to the crisis is now focused on projects that promise a high probability of success.

Q: Were the mentioned strategies that increases growth rate planned or it is a reaction to the Crisis (emerge strategy)? Why did you utilise these strategies?

Ans: The strategies mentioned above are all emerge strategy. CK never planned for the crisis because it was too sudden.

Q: What activities were ineffective in responding to the economic downturn? Why has the company decided to utilise those strategies? What was the anticipated target and how did it failed?

Ans: Using foreign currency because of cheap interest rate.

Q: What plan have you got for the future?

- Why do you think, what reason, make the plan appropriate for future situation?
- What factor constrains the company to pursue planned goals?

Ans:

Geographical diversification – CK have started studying the feasibility of undertaking overseas construction project since 1999. In 2005, the company is expanding to South East Asia and Middle East. Next year, the company will be involved in constructing roads and electric dam (concession) in Cambodia and Laos respectively. The Thai government and the ADB have funded both of projects. CK sees Chinese contractors as their most dangerous rival.

Q: For the next recession, based on the latest crisis, how would you respond in order to survive the crisis?

Ans: Concession and Geographic diversification.

Q: How does the company's activities / businesses / structures / strategy differ from before the crisis?

Ans: CK is currently operating with the same structure, however that will be adjusted soon.

## **Italian-Thai Development (1958)**

**Number of employees:** 22,977

### **Type of business**

- **Construction contractor**  
Mainly in Public sector (85%), including Airports, Buildings, Industrial Plant, Highways, Bridges, Utility Works, Mass Rapid Transit System, Railways, Dams, Tunnel, Power Plants, Telecommunications and Marine Works. They serve for both domestic and international market.
- **Mining operator**  
ITD is recognised as a mining operator more than 30 years. ITD operates for both domestic and foreign market. In 1998, they expand to operate in Myanmar. The company has then been awarded the concession from Electricity Generating Authority of Thailand in 2000.
- **Cement and Steel suppliers**  
Both have been established before 1997. They are mainly for supporting their own projects.

### **Interviewee Information:**

**Name:** Dr Nuttawuth Udayasen

**Position:** Vice President (Project)

### **Interview:**

**Q:** What significant lessons were learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. Currency exchange instability is potentially fatal. The company suffered as a result of the Baht floatation because it had borrowed some amount of foreign money for investment.
2. The company shouldn't have diversified itself into new line(s) of business that is far from the company's core competency since during a recession, often at a loss, these would be mostly sold off.

**Q:** In what way(s) has the company grown, the most, after the recession (1997-2004)? Why and how do you think the mentioned strategies (businesses) effects your rate of growth?

**Ans:** ITD made it because:

1. The company had sold some businesses, particularly those not related to its core business such as some part of its hotel business, to gain money to repay its debt.
2. Fortunately, at that period, ITD had been awarded one foreign project which was paid in US dollar (USD). It compensated the loss sustained from borrowing foreign money.
3. Since a lot of ITD's client belongs to the public sector, there was no financial problem such as payment.
4. Since 1997, ITD started seeking the opportunity to work abroad. There are two main reasons for this; 1) The reduction of construction project in the Thai domestic market which led to unrealistic prices being tendered, 2) to reduce risk of exchange rate since all foreign projects are paid in hard currency such as Yen or USD. Most of the overseas construction projects are infrastructure project because it is their core activity. So far, ITD have expanded their construction service into Myanmar, Laos, Philippines, Taiwan and India and the projects which they have undertaken were and are funded by ADB, World Bank or the governments of those countries. In addition, the proportion of foreign projects in total projects of the company is approximately 20% since 1997 until 2005. Likewise, ITD has just taken over a construction firm in India in 2005 in order to expand its regional capacity

5. Before 1997, the company perceive that a concession in a hydro-power plant in Laos is a long-term sustainable business. This kind of business has generated relatively stable revenue to the company because it is a business related to utility. They have never thought to sell this business, even though some investors would like to buy during the crisis. In 1998, ITD has been awarded a concession of coal mining project in Myanmar. Then, in 2000, they were also been awarded a 10 years contract coal mining project in Thailand, authorised from Electricity Generating Authority of Thailand.
6. Focus on core competency: as mentioned above, most of businesses unrelated to the core business of ITD had been sold because of the inability to manage it effectively. However, there are some unrelated businesses which were spared from being sold off; however these are but a small portion. Fortunately, in the boom, they did not diversify to development since it was the main sector which suffered the most.
7. Restructuring – as a result of the crisis, ITD had to down size, reduce its overhead cost and also resort to lay offs.

**Q:** Were the mentioned strategies that increases growth rate planned or it is a reaction to the Crisis (emerge strategy)? Why did you utilise these strategies?

**Ans:** The mentioned strategies are all emerge strategy since the company had never thought and anticipated for the crisis and also the crisis had happened too fast to effectively formulate an effective plan to counter its effects.

**Q:** What activities were ineffective on responding to the economic downturn and why has the company decided to utilise those strategies?

**Ans:**

1. Diversifying to the new line out of core competency
2. Inflexibility of the organisation

**Q:** What plan have you got for the future?

- Why do you think, what reason, make the plan appropriate for future situation?
- What factor constrains the company to pursue planned goals?

**Ans:**

1. Geographical diversification: ITD is emphasising more on construction in a foreign market. This is because, from the recession, ITD learnt that hard currency income is a prized possession in the event of a financial crisis. Likewise, since they are the largest construction firm in Thailand and possibly South East Asia, the company possess high potential for external growth. Another reason is the fact that there is a high competition in the domestic market for large scale projects. Furthermore, ITD believe that compared to overseas projects, large scale projects are fewer in Thailand.
2. Not development: ITD has never thought about becoming a developer. This is because they have largely served only the public sector, mainly infrastructure projects. They believe that it is not worthwhile to diversify into the property sector as it would require it to acquire different skill and strategy, of which they may not be keen to adopt and adapt to since this could lead to management difficulty during a recession.
3. Supplier: The company is planning to open another cement plant in 2005. The new plant will mainly support ITD's own projects. They believe that this activity will enable the firm to increase the continuity of its working process. Moreover, as they are the largest contractor in Thailand, the quantity of work is large enough to become worthwhile to produce its own material.

## **MC Construction**

### **Type of business**

- Construction contractor - mainly in Public sector – road construction
- Single business

### **Before the recession**

- The company had signed the contract for several government projects since 1995-1996
- Therefore, MC could survive because the signed contracting projects before the recession. Moreover, its client is mainly government, so they did not get the financial problem since government could afford money for the projects.

### **Interviewee information:**

**Name:** Karn Chaijaroenmaitree

**Position:** Director

### **Interview:**

**Q:** What significant lessons were learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. Do not get the project that the company are not keen on
2. Do not get the projects which are too big to cover
3. Exchange rate, especially during the crisis
4. Do not try create sunk cost – by investing on fixed assets, especially the specialised type of machinery which cannot use with other type of projects

**Q:** In what way(s) has the company grown, the most, after the recession (1997-2004)? Why and how do you think the mentioned strategies (businesses) effects your rate of growth?

**Ans:** MC survived because:

1. It didn't have to repay foreign loan therefore the Baht floatation did not affect the company.
2. Its client is the public sector which were not as affected by the crisis.
3. Focus on core competency. By concentrating on the type of project that they are keen on, they could estimate and plan for the future more accurately.
4. Careful project selection would help enhance the company's performance.
5. Restructuring – Lay off, down size.

**Q:** Were the mentioned strategies planned or is it just reaction to the event (emerge strategy)?

**Ans:** The mentioned strategies were all emerge strategy. They had never thought and planned for the crisis because it happened very fast.

**Q:** What factors influence the company to utilise these strategies?

**Ans:** Most of the projects, nowadays, have higher cost, while the budget of government remains the constant. Therefore, MC had to make sure that each project taking would be worthwhile.

**Q:** What activities were ineffective at responding to the economic downturn? Why has the company decided to utilise those strategies?

**Ans:** With less government-backed projects, MC had diversified to Private sector. However, they faced the financial problem of private client.

**Q:** What plan have you got for the future?

**Ans:** Although they prefer to focus on core business, in the future MC have planned to:

1. Diversify to development sector only in the country

2. Diversify to other regions, especially neighbouring countries – road construction
3. No idea to diversify to be supplier as there are a high number of suppliers in the market.
4. No idea to diversify to the totally new market.

However, they are carefully preparing for diversification since it possessed relatively high risk. They do realise that geographical diversification can help spread risk. However, they will start working with the foreign project supported by reliable funding institutes such as ADB or Thai government because the market that MC will go in to such as Laos is very unstable.



## **Nawarat Patanakarn**

### **Type of business:**

- **Construction contractor**  
Mainly in Public sector (90%) e.g. Infrastructure construction, Waste water treatment plants and building etc.
- **Precast concrete factory** (before crisis)  
Mainly support the company's construction projects, 80%.
- **Steel factory** (before crisis)  
Mainly support the company's construction projects, 80%.
- **Waste water treatment service** (  
Concession for 5 years

**Number of employees:** 2,000

### **Interviewee information:**

**Name:** Mr. Vajraput Vajrabhaya

**Position:** Manager strategic planning division

**Q:** What is the most significant lesson learnt from 1997 crisis that affects the strategic plan of the company?

**Ans:**

1. Instability of exchange rate could be fatal since firms are prone to suffer from currency fluctuation.
2. Private sector could create NPL, while the Public sector could not.

**Q:** In what way has the company grown, the most, after the recession (1997-2004)?

**Ans:** Nawarat survived because

1. It mainly caters to the public sector therefore it experienced no financial problem.
2. Horizontal diversification – The company diversified their business to waste water treatment service. This is because the company believes that this type of business can generate constant revenue since it is a public utility. In addition, this activity benefits to the company because they can build and then operate. Furthermore, since the company possesses the know-how in this kind of project, there is high opportunity to further diversify into the same kind of project.
3. Geographical diversification – NWR has already diversified into other regions such as Laos, Cambodia, Vietnam and UAE. The problem for South East Asia is unstable politic and funding source. Therefore, the company has chosen to undertake the projects funded by ABD or World Bank. While most projects in Dubai are in private sector since they have a strong financial status. The overseas projects have contributed 33% of total construction revenue.
4. Reducing overhead cost and lay off

**Q:** Were the mentioned strategies that increases growth rate planned or it is just reaction to the event (emerge strategy) and why did you utilise these strategies?

**Ans:** The mentioned strategies are emerge strategy. They had never thought and planned for the crisis because it happened too fast.

**Q:** What activities were ineffective on responding to the economic downturn? Why it did not work and why has the company decided to utilise those strategies?

**Ans:**

1. Creating fixed costs
2. Inflexibility of the organisation. This is because the company tried not to subcontract. They were willing to do everything by themselves.

**Q: What plan have you got for the future?**

**Ans:**

1. Trying more to diversify geographically – NWR believe that in the event of a world crisis, the economy of each country would collapse at a different period. As a result of geographical diversification, the company could balance the risk among the different location.
2. Development – If there is another upturn of property sector, the company is willing to diversify into development. They believe that property sector possess great potential.
3. Since the company has identified with the construction business, to diversify into an entirely new activity such as food producer would impact the image of the company and confuse its shareholders.

## **NL Development**

### **Type of business**

- **Construction contractor (1982)**  
Mainly in Private sector (70%) e.g. Building and Factory

### **Interviewee information:**

**Name:** Mr. Poomson Rojlerjanya

**Position:** CEO

### **Interview:**

**Q:** What is the most significant lesson learnt from 1997 crisis that effects to the strategic plan of the company?

**Ans:**

1. An unstable currency could prove to be fatal to a company's survival.
2. Failed contractors invest most of their money in the property sector, especially by borrowing from foreign countries. When the floatation took place, they were then unable to repay its debt.
3. The company should pay more attention on R&D and management.
4. Confidence that conservative concept for investment is the right way.

**Q:** In what way(s) has the company grown, the most, after the recession (1997-2004)? Why and how do you think the mentioned strategies (businesses) effects your rate of growth?

**Ans:** MC survived because

1. The company didn't borrow from abroad so it wasn't affected. Although at that time some foreign financial institutes had offered about \$10,000,000 for loaning, board of director had decided against it. They relied on their own money and loans from domestic sources so during the crisis, although the company undertook fewer projects, they were not especially affected in the process.
2. Before the crisis, MC's main client was the public sector (90%) therefore it didn't face any financial problem.
3. Focus on core competency – The company have concentrate on the core activity. Even in the boom, NL did not diversify into other businesses. Nonetheless, if there are interesting opportunities, NL will certainly do.
4. NL by selecting the projects more carefully and only those that have a high probability of success, NL hopes to protect itself against future market failures.
5. Reduce overhead costs – While NL had resort to cut down 20% of its wage rate and issued no bonus, it however did not lay off their staff.

**Q:** Were the mentioned strategies that increases growth rate planned or it is just a reaction to the event (emerge strategy)?

**Ans:** The mentioned strategies are all emerge strategy. It was caught off guard.

**Q:** What activities were ineffective at responding to the economic downturn? Why has the company decided to utilise those strategies? What reasons?

**Ans:** After the crisis, in 2001, NL had tried to diversify horizontally. It chose to manage a resort because the government was promoting tourism campaign. However, having studied the project more deeply they realised that the feasibility is rather low because their lack of experience, know-how and potential head staff in this type of business since their new activity is entirely different characteristic from its main business.

The reason is tourism is not aimed at the domestic market. This is because the majority of tourists are foreigners. The company feels that this business can spread risk since during the Thai economic down turn this market was not affected.

**Q: What plan have you got for the future?**

**Ans:**

1. **Core business** - In general, the company will concentrate on construction. Since the government has planned to compete with Singapore to become the centre of South East Asia, therefore, plenty of projects would be generated.
2. **Geographical diversification** – Like other contractors, NL are willing to expand its construction activity to other regions since NL felt that this is one of the way to grow. However, there are still a lot of uncontrollable factors that they have to consider. As a result, NL needs to study more in depth whether or not the regions that they want to diversify into possess high and continuous growth potential. The countries that they are interested in are in South East Asia such as Laos, Myanmar and Cambodia. In addition, the important rival is Chinese contractor. However, NL will only start with the projects funded by ADB or World Bank in order to minimise financial risk.
3. **Not being supplier** – The company thinks that it is difficult to become supplier because of high competition and the high invest involved.

**Q: In the event of a recession, based on the latest crisis, how would you respond in order to survive to the crisis?**

**Ans:**

1. **Apart form the strategies above**, NL are also focused on cost control in construction projects, especially buildings. If the company can manage cost effectively, this would help the company to minimising damage.
2. **Adjust the proportion of Public project and Private project** from 30%:70% to 60%:40% in order to protect the financial problem.

## **RITTA**

### **Type of business:**

- **Construction contractor and Designer(1987)**  
All clients are in the Private sector e.g. high-rise buildings, Plants.

**Number of employees:** 1200

### **Interviewee information:**

**Name:** Sidney Yangeksakul

**Position:** Financial Officer

**Name:** Kamol Sukosonjai

**Position:** Director

### **Interview:**

**Q:** What significant lessons were learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. An unstable exchange rate is potentially fatal. The fact that Ritta did not borrow money from foreign sources, they could safely pass the crisis.
2. Screening clients is extremely important. Before signing the contract, they will recheck the financial status of such clients with the bank.
3. The system of payment needs to be cleared at the first step, otherwise it would become a problem.

**Q:** In what way has the company grown, the most, after the recession (1997-2004)?

**Ans:** Ritta successfully survived because

1. The company didn't borrow from outside sources so the Baht floatation didn't affect the company.
2. Focus on core business and high potential client - Although their clients belong to the private sector, the financial problem of the clients did not affect the state of the company because Ritta's clients were foreign investors therefore, the company didn't face any payment issues. This shows that it is worthwhile for the long run since development sector collapsed severely.
3. By selecting the projects more carefully, only the projects that possess a high probability of success will be beneficial to the company's activities.
4. Reduce overhead cost.

**Q:** Were the mentioned strategies that increased growth planned or is it just reaction to the event (emerge strategy)? Why did you utilise these strategies?

**Ans:** The mentioned strategies are all emerge strategy. They had never thought and planned for the crisis because it happened too fast for them to react effectively.

**Q:** What activities were ineffective on responding to the economic downturn? Why has the company decided to utilise those strategies? What reasons?

**Ans:** Not screening clients affected the company financial statement.

**Q:** What plan have you got for the future?

**Ans:**

1. Focus on core competency – Ritta's strategy is to focus on its core business. They believe they will be able to survive the next crisis because in the event of future crisis, construction would not stop. Hence, Ritta with its experience, high quality, and brand, the company would be attractive to its perspective clients.
2. Geographical diversification – The company has planned to diversify geographically by the 2006, especially the Middle East due to its economic potential. Moreover,

project owners in Middle East are willing to hire Thai contractor because of its high experience at a lower cost.

3. Not interested in diversification whether unrelated or backwardly – They believe that diversification to a wide range of activities is an old idea. They have seen that most of highly diversified firms were not successful. The reason not to diversify to become a supplier is the fact that those activities need special know-how and high investment. In addition, as they have no experience on those activities, it might be more difficult to compete with existing suppliers and their preference is to have a good relation with supplier so that they can get the appropriate price.
4. Undertaking government project – Since the crisis, the company is trying to increase the proportion of government project because, nowadays, there are a lot of projects launched such as subway or other mega projects. However, it has not yet been successful as the company culture is inappropriate to bid for government projects.

## **See Sang Karn Yotah (1979)**

### **Type of business**

- **Construction contractor (1979)**  
Mainly in Public sector (90%) e.g. Highway and Road Construction, Underground Tunnel Construction, Irrigation System Construction, Airport Runway Construction and Bridge Construction
- **Precast Concrete Product Factory (1997) –**  
Mainly serve the company's projects and supply other contractors, which specialises in Tunnelling construction material

**Number of employees:** 1,100

### **Interviewee information:**

**Interviewee:** Mr. Sunan Wongsirojkul

**Position:** Project director

### **Interview:**

**Q:** What is the most significant lesson learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. Unstable exchange rate could cause a firm to collapse.
2. Organisational inflexibility and resources constraints will create inefficiency during the crisis.
3. Private sector could create NPL, while Public sector will not.
4. Creating a high number of fixed assets was inefficient.

**Q:** In what way has the company grown, the most, after the recession (1997-2004)?

**Ans:** Sang Karn Yotah said:

1. Since SKY's clients are largely the public sector, therefore there was no financial problem.
2. By shifting to specialised know-how projects – By shifting itself to the specialised projects such as tunnelling projects. In addition, they can reduce their rivals, and create opportunity for itself. However, to be specialised contractor they need to possess the special resources such as factory therefore have then expanded their activity also become a specialised supplier.
3. Related diversification – Since the economic downturn, the company started diversifying vertically down the business chain. In 1997, the precast concrete factory was established to support the company's specialised Tunnelling project. They perceive that in the future, the majority of the infrastructure projects will be underground such as subway, electrical system or other telecommunication systems. Moreover, the factory would able to sell off its products to other producers. Likewise, by being a supplier the company can offer a lower bidding price than and avoid the market failure. Consequently, the company can manage the supply chain more effectively.
4. By selecting the projects more carefully, SKY was able to ensure a higher rate of success.
5. Restructuring – down size.

**Q:** Were the mentioned strategies that increases growth rate planned or just reaction to the event (emerge strategy)?

**Ans:** The strategies that SKY used were all emerge strategy. They had never thought and planned for the crisis because it happened too fast and very unexpectedly.

**Q: What activities were ineffective on responding to the economic downturn? Why has the company decided to utilise those strategies? What reasons?**

**Ans: Creating fixed costs and fixed assets.**

**Q: What plan have you got for the future?**

**Ans:**

1. Being a specialised contractor – SKY thinks that by emphasising upon the tunnelling project it is able to combat against the next crisis. This is because the majority of infrastructure projects are government backed, involves low risks, and the know how involved is difficult to imitate.
2. Geographical diversification – Since 1999, the company has begun studying the feasibility of diversifying into neighbouring construction market, mainly in Laos, Cambodia and Vietnam. They expect that there will be a wide range of construction projects, especially infrastructure works among South East Asia in order to support the expansion of various industries since there is the plan to link the Southern China, Thai, Laos, Vietnam and Cambodia together to become free trade union. Furthermore reliable financial supporters such as ADB and World Bank are funding these projects.



## **Siphya Construction**

### **Type of business:**

**Construction contractor** (1964) - Main clients is in Private sector e.g. High rise buildings, Plants.

**Number of employees:** 2,807

### **Interviewee information:**

**Name:** Mr. Wichutorn Kosolthanuraveat

**Position:** Technical and Estimation Manager

### **Interview:**

**Q:** What is the most significant lesson learnt from 1997 crisis that affected the company's strategic plan?

**Ans:**

1. An unstable exchange rate is very important to a firm's future. Since Siphya Construction did not borrow money from outside Thailand, they had no problem passing the recession caused by the financial crisis.
2. Siphya Construction highly values client screening, by rechecking the financial status of their potential clients, the company is able to safeguard against unforeseeable events, such as the 1997 crisis.
3. From the very initial stage, the system of payment needs to be clear, because it could otherwise become problematic when the owner has a financial problem.

**Q:** In what way has the company grown, the most, after the recession (1997-2004)?

**Ans:** Siphya came out of the crisis ok because

1. The company mainly relied on their own funds therefore it wasn't as affected by the floatation of the Baht.
2. Focus on core business and high potential client – The company survived because of its conservative strategy. They tried not to undertake project that exceeded the company's capability. During the boom before the crisis, although there were a great deal of projects, the company increased their number of projects just from 5 to 8 projects, whereas other contractors enjoying the economic upturn increased from 5 to more than 20 projects. They believe that construction industry is the highly volatile industry since there are a number of variables.
3. The company place great focus on project selection because by selecting only those projects with great potential it is able to safeguard itself against business downturn, failures, and other unforeseeable events.
4. Another thing that helped the company was the fact that it tried successfully to reduce its overhead cost.

**Q:** Were the mentioned strategies that increases growth rate planned?

**Ans:** The mentioned strategies are all emerge strategy. The company was surprised by the speed of the events in 1997 hence it never thought nor planned for an event such as that of a crisis.

**Q:** What activities were ineffective on responding to the economic downturn? Why has the company decided to utilise those strategies? What reasons?

**Ans:** The fact that the company didn't scrutinise and screen its clients, did affect the company's financial statement.

**Q:** What plan have you got for the future?

**Ans:**

1. Focus on core competency – Siphya Construction think that despite project reduction, the number of projects are still enough for the company to survive through the recession. This is because they are a large size construction firm which possess higher capability such as experience, know-how and resources over general contractors. They believe that project owners will be attracted to this feature. Furthermore, they also believe that there is high opportunity to grow in this business by developing the company standard.
2. Geographical diversification – For Siphya, it can be distinguished into 2 strategies. First, to undertake the Middle East projects. The company will focus upon only project management. This means that they will export only management team to operate and manage in the regions. The reason is to utilise the resources such as engineering and managing staff which would not be utilised during the crisis in Thailand. The reason why they would not be responsible for the whole scope of projects because it would be risky to undertake the whole project. Therefore, if the projects did not succeed, the company would not have to bear too much lost. Second, the other area that the company is interested in Thailand's neighbours such as Laos, Cambodia and Vietnam. In this case, the company will undertake the whole scope of project because there is lower risk involved. Moreover, they are more interested in the latter regions than the former one. This is because South East Asia closer integration as a result of development of China, will generate a lot of projects in the region. In addition, the neighbouring countries possess a wide range of resources and there are a lot of funds from ADB or World Bank.
3. The company is currently not interested in diversifying into unrelated activities, nor are they interested in diversifying backwardly.
4. Undertaking government project – Since the crisis the company is trying to increase the proportion of government project. This is because, nowadays, there are a lot of projects launched such as subway or other mega projects. However, it has not yet been successful as the company culture is inappropriate to bid for government projects.

## **Power Line Engineering**

**Established:** 1988

**Number of employees:** 1000

**Type of business:**

- **Construction contractor** - mainly in Private sector (2000)– High rise building
- **Electrical and Mechanical Engineering Systems Installation** (1988)

**Company profile:**

PLE was established in 1988. The company started working in E&M engineering systems field. Then in 2000 PLE has taken over the construction firm, Unima Engineering Co. At the beginning of 2005 the company has started new business which is Electrical power plant.

**Proportion of project types:**

Public sector : Private sector – 20% : 80%

Construction : E&M systems – 40% - 60%

**Interviewee information:**

**Name:** Mr. Swake Srisuchart

**Position:** Director

**Interview:**

**Q:** What is the most significant lesson learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. Being unable to collect money from project owners as the majority of their clients are in the private sector.
2. Suppliers did not provide credit to the company since it was experiencing problems with collecting financial payments from their clients, i.e. project owner.
3. Unless the company is careful at selecting and undertaking new construction projects (before crisis), it could be severely affected.

**Q:** In what way has the company grown, the most, after the recession (1997-2004)?

**Ans:** PLE survived the crisis because

1. PLE reduce overhead cost – e.g. wage rate 30-50% for manager, 15-30% for employee. Furthermore, the company also had to resort to layoffs.
2. Since the company had no outstanding foreign loans, the floatation did not really affected the company's well being.
3. Conservative strategy – PLE did not invest beyond their capacity. During the boom, the company has saved their money rather than investing more like their peers. Most of contractors who perished spent too much of their revenue and borrowed to further their businesses. By saving up its money, during the crisis PLE had no problem in finance. As a result, the company could undertake more projects during the recession because the clients believe in their financial ability and there were less rivals.
4. In 2000, PLE has taken over the construction firm and started diversifying into this section. The director of PLE believes that both activities have a similar characteristic; therefore the new business is manageable. Moreover, they are related to each other. As a result, the company can increase the profit by undertaking both activities since the construction generates higher margin compare to E&M installation.

**Q: Were the mentioned strategies that increases growth rate planned?**

**Ans:** They diversify to the construction because of the resource-base. Both are based on project management, which PLE is highly experienced. In addition, by acquiring the construction firm PLE can extract the advantages, experience and know-how from the company. This enables PLE not to start in this field from zero therefore the company can run the new business efficiently.

**Q: What activities were ineffective on responding to the economic downturn? Why has the company decided to utilise those strategies? What reasons?**

**Ans:** Being unable to halt constructing even though the owner could not afford was the most significantly ineffective strategy. The company should have stopped doing immediately, if the owners could not pay.

**Q: What plans have you got for the future?**

**Ans:** PLE has planned to:

**1. Diversify itself to be developer.**

They are going into the property market in the next few years unless the situation worsens. However, they would not act fully as the developer. This is because it is still a high-risk business. Therefore, they are to share equity with potential developer since it is much safer to do so. Although property development does promise high profit, the lesson learnt from 1997 illustrated that in a severe recession, the sector that was greatly affected was property development. In addition, by moving to become a developer, PLE could take advantages from construction, E&M installation and property sale. By sharing, it is able to reduce risk from the new activity in which PLE has no experience.

**2. Not to be supplier.**

In their opinion, high competitions in downstream market make it difficult to start a new activity that needed special know-how and high investment. As PLE itself is a contractor, it may be difficult to sell such material to its rivals.

**3. Geographically diversification.**

Mega projects initiated by the Thai government, such as Transportation project or a planned new administrative centre has led Thai contractors to believe that these projects is enough for long term job creation and income generation. However, PLE believes that such projects are dependent upon the political condition which is unreliable. In addition, since the business down turn could occur in the next 2-3 years therefore, five years ago the company had started studying how to expand their scope to other countries. Since then, they have found that the region with most potential is the Middle East. Then, in 2002 PLE began diversifying to those countries. Now, E&M installation is the activity that PLE is undertaking in such areas, and construction will be the company's next activity. The problem for undertaking construction projects in those areas is that local contractors can offer a lower bidding price since they can buy cheaper materials. While E&M installation most of equipment has to be imported, as a result there is no the same problem as construction.

Another region is SEA. Nonetheless, this area has higher risk than the Middle East. As a consequence, the company will take the projects funded by World Bank or ADB.

**4. Concession in public facilities**

At the beginning of 2005, PLE has begun to operate an electrical power plant concession. The company believe that by undertaking concession, especially in public facilities, the company would enjoy long term growth even during a recession.

## **KPV**

### **Type of business**

- Construction contractor – Public sector (infrastructure)
- Single business

### **Interviewee information:**

**Name:** Mr. Jaran Damrongrat

**Position:** Director

### **Interview:**

**Q:** What significant lessons were learnt from 1997 crisis that affected the strategic plan of the company?

**Ans:**

1. Not try to borrow money from abroad because when there is deflation, repayment is exceedingly difficult.
2. Fixed assets during a recession become sunk cost. Presently, KPV, on their projects, instead of buying and owning, which they would have done in the past, they now rent the machinery that they use.

**Q:** In what way(s) has the company grown, the most, after the recession (1997-2004)? Why and how do you think the mentioned strategies (businesses) effects your rate of growth?

**Ans:** KPV's survival was due to:

1. Signed contract before the crisis
2. Did not borrow money from foreign institution.

In addition KPV believe that by focusing on its core business construction it was able to endured the economic downturn. But as the company is also skilful at contracting activity, therefore despite the recession, the company has decided to retain this activity and try to move its work to the level of Mega Project or concession which the company can reap more long term benefits. The company believes that if the company is focused on its most skilled business, it could become stronger. They also believe that there will be plenty of construction projects in the future since it is one of the main sectors of economy.

**Q:** What activities were ineffective on responding to the economic downturn and why has the company decided to utilise those strategies?

**Ans:**

1. Lay off
2. Down size
3. Reduce wages
4. Government projects – who are not restricted to financial constraints of private companies
5. Short contract projects

The company had never planned for nor anticipated a crisis happening, hence it was all emerge strategy. This is because pre-recession most firms enjoyed supernormal profits that they ignored preparation for a bust.

**Q:** Of the various strategies, which is the most significant or successful strategy (business)?

- Why did it work? Company strength / Resources / Knowledge / Market / Government support / etc.
- Why has the company decided to utilise those strategies? What reasons?
- Did it succeed following the goal?

Ans: With KPV's experience and knowledge, constructing infrastructure projects became its most successful strategy.

Q: What activities were ineffective at responding to the economic downturn? Why has the company decided to utilise those strategies?

Ans: In order to grow, the firm planned to diversify by becoming a developer. However, this strategy did not succeed since the construction business was enduring a tough time.

Q: What plan have you got for the future?

- Why do you think, what reason, make the plan appropriate for future situation?
- What factor constrains the company to pursue planned goals?

Ans:

1. The company has planned to diversify to other business which is development – office building – because they possess a number of lands and the knowledge of construction - resources. Nonetheless, the constraint of this business is that the new activity is almost different from the road construction as difference of the equipment and plants used.

2. KPV has planned to get the project outside the country in neighbouring countries. They believe that this strategy will help the company to spread risk from the cycle of each region. However, there is no support from the Thai government. Chinese contractors have become Thai construction firms' rival in South East Asia. This is because the latter is supported by its government to work outside their country.

1. Concession

In order to save the company from the next crisis, KPV is attempting to diversify itself to be operator. They are looking forwards to construct a concessionary project of government and then operate such a project. By operating the kind of the project it could insure that the company could receive the constant income over the contracting period. Therefore, although there would be another recession, this could bring the company through such a moment.

2. Joint Venture. Because the future projects of the government are Mega project which require high contractor qualification, the company needs to joint with the bigger company, usually foreign contractors, in order to get the job. Moreover, the company itself can learn any new technologies from its partners.

3. Not go to downstream of the chain (Supplier). The firm has never thought to diversify to the downstream of the chain. This is because the historical learning from other companies since those used to be the material producer but it was not successful. The main reason is the fact that being producer is relatively hard if you just want to serve only your project. Being unable to get the economics of scale and scope and specialised know-how is one another factor.